BioGenex

miRNA *In Situ* Product Catalog

2016-2017

miRNA *In Situ* – Dawn of a New Era

For Clinical Research & Tumour Analysis

- Cancer of Unknown Primary
- Undifferentiated Tumors
- Cancer Staging

Dear Customer,

We are pleased to present the BioGenex miRNA Product Catalog for 2016 - 2017. As a vertically integrated company we develop, manufacture and market highly innovative and fully automated systems for cancer diagnosis, prognosis and therapy selection.

Xmatrx® systems redefine complete automation for the molecular pathology laboratory and standardize all the steps from baking through final cover-slipping in three simple steps - Load, Click and View. Compared to any other system on the market, Xmatrx® systems offer clean intense stain(s), automate more assay steps, and enable automation of technologies for the future molecular pathology laboratory.

- Xmatrx® ELITE integrates All-in-One and All-at-Once staining of IHC, ISH, special stains and beyond
- Xmatrx® Infinity is a high-performance staining platform for life sciences and translational research
- Xmatrx® ULTRA is the next-generation system with new features such as touch screen and SMS intelligence
- Xmatrx® NANO is a ten-slide automated system specifically designed for FISH
- Xmatrx® MINI enables *in situ* PCR and nucleic acid hybridization with tools for building micro-chamber

We also offer a series of i6000™ systems with very high throughput; 200 slides in an 8-hour shift.

To maintain our tradition of offering superior solutions for the emerging needs of your laboratory, we offer a broad range of molecular pathology products for IHC, ISH, miRNA, multiplex and special staining of tissues including 300+ primary antibodies, molecular probes, detection systems, and ancillaries. These are offered for standardized, reliable and consistent results to support the needs of molecular pathology laboratories of today, tomorrow and beyond.

BioGenex is committed to the core values of innovation, reliability, productivity, quality and superior after sales support and service for complete customer satisfaction. These values are represented by our company's colors that stand for "energy and innovation" (orange) and "reliability" (blue).

I invite you to learn more about our exciting products and future development through this catalog and our new website at www.biogenex.com. Should you have any suggestions for improving our products and services, I encourage you to write me directly at k.kalra@biogenex.com.

Give us an opportunity and experience the difference.

Warm Regards,
Krishan Kalra, Ph.D.
CEO

"To become a global molecular medicine company providing affordable solutions for life science research and personalized medicine"

Dr. Krishan Kalra

- Innovation
- Quality
- Service
- Reliability
- Productivity

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For latest product offerings visit our website **www.biogenex.com** or contact our customer support: **customer.service@biogenex.com**

Overview

BioGenex celebrated its 33rd anniversary serving the anatomic pathology market. We take great pride in providing premier service and support while bringing new and technologically advanced products to the market.

BioGenex provides a "Total Solution" for slide-based cell and tissue analysis. Our products include a wide variety of antibodies, highly sensitive detection kits, and probes for ISH. Our automated systems streamline operations in molecular and cellular pathology laboratories, providing effective tools for the detection and diagnosis of cancer and other diseases. BioGenex continues to innovate as evidenced by the launch of the Xmatrx® Staining System which provides complete automation "From Microtome to Microscope".

We are committed to providing our customers and our distributors with flexible, innovative and cost-effective tools for clinical diagnostics, life science research and drug discovery.

Service

We value you and your business. We want our relationship to be one of total satisfaction. Our Technical Support Specialists provide fast troubleshooting advice and technical information and they are responsive to your individual needs. Just visit our website at www.biogenex.com, send an e-mail to support@biogenex.com or call toll free at 1-(800)-421-4149 from 7:00 AM to 4:00 PM (PST), Monday through Friday, with your request.

Quality

BioGenex is committed to excellence by providing high-quality products. We offer a broad range of products which are manufactured using state-of-the-art equipment in controlled environments. They are stringently tested to ensure that they meet or exceed functional, dimensional, and environmental requirements and are compliant with federal regulations. Our automated systems are designed for high-throughput at a low cost of ownership. They provide consistent quality results with ease of use and maximum flexibility for clinical diagnostics, life science research, and drug discovery markets.

Reliability

BioGenex products give consistent, reproducible and reliable results. Our automated systems are highly reliable and dependable, giving our customer peace of mind.

Innovation

BioGenex has a rich history of innovation in the field of Immunohistochemistry (IHC) and *In situ* Hybridization (ISH). BioGenex has a strong intellectual portfolio, consisting of several US and foreign-issued patents, in the areas of

- DNA labeling and amplification
- Antigen retrieval and deparaffinization
- Automation of tissue and cell sample preparation
- Automated IHC, and staining of nucleic Acids
- Antigen retrieval and nucleic acid retrieval for tissues

Productivity

BioGenex has automated cell and tissue analysis to accelerate clinical diagnostics and drug discovery development. We have developed the total walk-away, industrial scale automated systems to streamline and standardize an array of processes for cell and tissue testing in IHC, ISH/CISH, FISH, and image analysis applications. We offer a "Total Solution" automating every aspect of the histology slide preparation "From Microtome to Microscope". These technologies significantly increase laboratory operation productivity for clinical diagnostics, drug discovery and life sciences research applications by providing high-quality staining and imaging solutions.

Ordering Information

BioGenex Customer Service

Please call our Customer Service department from 07:00 A.M. to 04:00 P.M. (PST), Monday through Friday, to place an order or to inquire about an existing order.

Telephone (toll-free)	1-(800)-421-4149 (Option 1)
Fax (toll-free)	1-(888)-866-2500 (orders only)
Fax	1-(510)-824-1490
E-mail	customer.service@biogenex.com
Mail Orders	BioGenex Laboratories, Inc. Attention to: Customer Service 49026 Milmont Drive Fremont, CA 94538

Quote request can also be placed via our website.
To expedite the order process, please include the following information on your purchase order or correspondence:

- Purchase order number
- Customer number
- Name, phone and fax number of person ordering
- Shipping address (please do not use P.O. Box number)
- Billing address (if different from above)
- Name of product, catalog number, quantity, and price
- Special shipping instructions
- Credit card number and expiration date (for credit card payments)

International Orders

To place an order from outside the US, please contact your local BioGenex channel partner/distributor. Please visit our website www.biogenex.com, for more details. For countries where BioGenex does not have any channel partners/distributors, please e-mail us at internationalcs@biogenex.com

Opening a New BioGenex Account

First time orders paid by credit card (see under Payment) will be processed and shipped immediately. For other payment methods please accept a delivery time of up to five business days for credit verification purposes.

Credit Terms

Net 30 days in U.S. Dollars, upon approval. Overdue accounts are subject to a finance charge of 1.5% per month (18% per annum).

Confirming Orders

To avoid duplication of your shipment, please mark boldly “confirming order - please do not ship” on your order.

Pricing

All prices are quoted in U.S. dollars, exclusive of state and county sales tax, where applicable. Prices are valid only for shipments within U.S. and are subject to change without notice. Please inquire about our standing order and quantity discount policies.

Shipping

Shipping and handling charges are prepaid and added to the invoice. They vary with the destination, weight and content, and are available upon request at order entry and are indicated on the invoice. Reagent orders received by 2:00 P.M. (PST), Monday through Thursday, will generally be Expedited Shipping for Next Day Delivery. Early A.M. and Saturday delivery are available upon request.

Payment

All payments must be made in U.S. dollars. The following methods of payment are accepted:

- Bank transfer (see invoice for instructions)
- Check, drawn on a U.S. bank, made payable to: “BioGenex Laboratories, Inc.”
- MasterCard®
- Visa®
- American Express®

Return Policy

Reagents are covered by the following Total Quality Assurance policy which states:

If you are not completely satisfied with the quality of our reagents, you may return them to us for a refund or replacement, at our option. BioGenex’s liability is limited to a refund or replacement, at our option. Please obtain a Return Material Authorization (RMA) number from Customer Service prior to the return of a product. Returns, which are not caused by unsatisfactory product performance, must be made within 30 days of delivery and will be subject to a 30% restocking fee. Returns or replacements cannot be accommodated for expired products. All products sent without an RMA number will be returned to sender.

General Information

Web Site

Upgraded

For the latest information on new product releases, special offers and for placing an online quote request, please visit our new website, **www.biogenex.com**

Customer Support

Our technical support and customer service specialists are ready to provide fast and detailed Information for your questions and needs. Please call our toll-free number to reach us.

Technical Support USA

Tel: 1-(800)-421-4149 (Option 2)
Fax: 1-(510)-824-1490
E-mail: support@biogenex.com
Website: www.biogenex.com

Customer Service USA

Tel: 1-(800)-421-4149 (Option 1)
Fax: 1-(510)-824-1490
Fax: 1-(888)-866-2500 (Orders Only)
E-mail: customer.service@biogenex.com

Corporate Office

BioGenex Laboratories, Inc.
49026 Milmont Drive
Fremont, CA 94538
Tel: 1-(510)-824-1400
Fax: 1-(510)-824-1490

Corporate Business

For general business matters not related to product orders or inquiries, please call us at 1-(510) 824-1400 or fax your correspondence to our main corporate business fax: 1-(510) 824-1490.

Trademarks

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EZ-DeWax™
*i*500 Plus™
Power Block™
AccuSlide®
OptiPlus™
InSite®
XWash™
EZ-AR™
MultiLink®
*i*6000™
GenoMx®
Xmatrx®
XMount™
XViz™
Super Mount®
XISH™

Additional Information

Nationwide Training Workshops

As a service to our customers, BioGenex has developed lectures and workshops on the full range of Immunohistochemistry and *in situ* Hybridization techniques. Please call our Technical Support Department or Regional Account Executive for more information on how you can participate in our educational workshops. Topics include the following:

- Basic Immunohistochemistry
- Cancer Panels
- Microwave-Based Antigen Retrieval
- ER/PR Immunostaining
- Troubleshooting
- Automation
- *in situ* Hybridization
- Double Staining
- Multiplexing and Co-detection of Protein and Nucleic Acid Biomarkers

Free Technical Literature

In addition to the educational brochures produced by BioGenex, we offer other technically useful information to the histopathology specialists on our website, www.biogenex.com where you can download our data sheet, product catalog or relevant presentation that may accompany each product assay protocols, kit instruction manuals and conference posters. Please call our Technical support department to request specific items or to add your name to our mailing list.

Technology Partnering Opportunities

We are always interested in licensing innovative technology that will be useful to our customers. If you are a researcher and have new antibody clones or other new diagnostic technologies please think of BioGenex as a potential partner in marketing your inventions and discoveries. We have the scientific expertise and marketing experience necessary for the successful commercialization of your technical achievements. BioGenex has an active Research and Development program fully staffed with PhD and MD professionals who are experienced in immunopathology, protein chemistry, and molecular biology. For more information on technology transfer opportunities, please contact us at customer.service@biogenex.com

Technical Information

All BioGenex products have been listed in this catalog under easily identifiable product groups.

The BioGenex miRNA Product Catalog for 2016 - 2017 is also available on our website, www.biogenex.com

MicroRNA Probes

MicroRNA Probes

MicroRNAs (miRNAs) are endogenous, non-coding RNAs known to regulate gene expression by translational repression or RNA cleavage. Since miRNA has been observed to deregulate during progression of different cancer stages from normal to malignant and metastasis, the expression profile as a result of this deregulation can be exploited as a potential biomarker for cancer characterization.

Automated and manual protocols

- Optimized for automated ISH staining by Xmatrx ELITE
- Ready-to-use reagents for FFPE tissues
- ISH Detection System and ancillaries

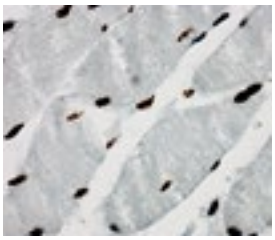
Highly Specific and Sensitive Probes

- Proprietary technology for clean intense stains
- *in situ* context of tissue morphology
- Positive control tissue slides

Examples of BioGenex miRNA staining

For additional images and information, please vising www.biogenex.com

Hsa-miR-1

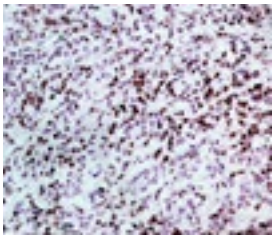


Hsa-miR-1 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	PR026-100 (ASR*)
Specificity:	miR-1
Recommended Positive Control:	TS-HM001

miR-1 plays a key role in the development and differentiation of smooth and skeletal muscles. The fluorescinated hsa-miR-1 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-let-7b

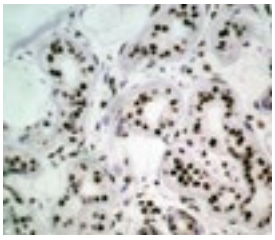


Hsa-miR-let-7b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM007B-100 (ASR*)
Specificity:	let-7b
Recommended Positive Control:	TS-HM007B

Let-7 family gene was first discovered in the nematode as a key developmental regulator. The expression of let-7 family has been reported to be lower in multiple tumor tissue than in normal tissue. The fluorescinated hsa-miR-let-7b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-let-7a

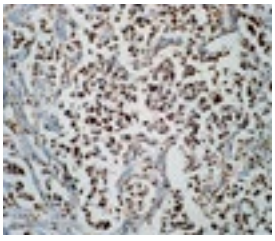


Hsa-miR-let-7a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM007A-100 (ASR*)
Specificity:	let-7a
Recommended Positive Control:	TS-HM007A

miR-let-7a has been shown to directly alter cell cycle progression and proinflammatory cytokine production. The fluorescinated hsa-miR-let-7a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-let-7c



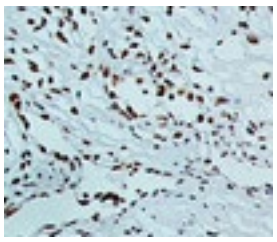
Hsa-miR-let-7c detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM007C-100 (ASR*)
Specificity:	let-7c
Recommended Positive Control:	TS-HM007C

Data suggest that miR-let-7c suppresses androgen receptor expression and activity via regulation of myc expression. The fluorescinated hsa-miR-let-7c probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-let-7d

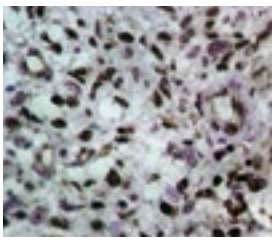


Hsa-miR-let-7d detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM007D-100 (ASR*)
Specificity:	let-7d
Recommended Positive Control:	TS-HM007D

Let-7 family gene was first discovered in the nematode as a key developmental regulator. The expression of let-7 family has been reported to be lower in multiple tumor tissue than in normal tissue. The fluorescinated hsa-miR-let-7d probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-9

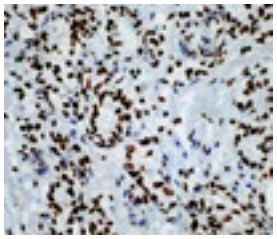


Hsa-miR-9 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM009-100 (ASR*)
Specificity:	miR-9
Recommended Positive Control:	TS-HM009

A series of miR-9 targets, such as nuclear factor (NF)-κB1, caudal type homeobox 2 (CDX2), chromobox protein homolog 7 (CBX7), and methenyltetrahydrofolate cyclohydrolase (MTHFD2), were associated with tumorigenesisr. The fluorescinated hsa-miR-9 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-let-7e

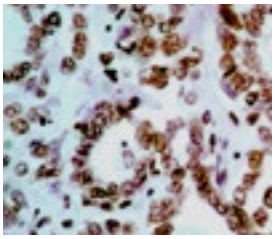


Hsa-miR-let-7e detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM007E-100 (ASR*)
Specificity:	let-7e
Recommended Positive Control:	TS-HM007E

miR-let-7e plays a pivotal role in stem cell differentiation and its loss results in reversion of embryogenesis and dedifferentiation. The fluorescinated hsa-miR-let-7e probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-10b

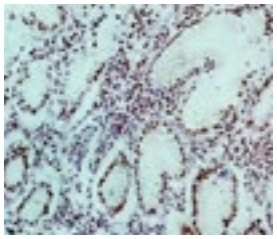


Hsa-miR-10b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM010B-100 (ASR*)
Specificity:	miR-10b
Recommended Positive Control:	TS-HM010B

miR-10b has been identified as a target gene of transforming growth factor-β (TGF-β1) which is a multifunctional cytokine that induces EMT in multiple cell types. The fluorescinated hsa-miR-10b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-let-7g

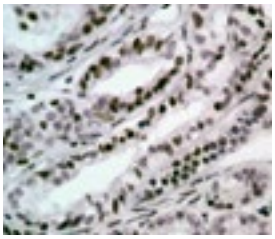


Hsa-miR-let-7g detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM007G-100 (ASR*)
Specificity:	let-7g
Recommended Positive Control:	TS-HM007G

Let-7 family gene was first discovered in the nematode as a key developmental regulator. The expression of let-7 family has been reported to be lower in multiple tumor tissue than in normal tissue. The fluorescinated hsa-miR-let-7g probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-15a



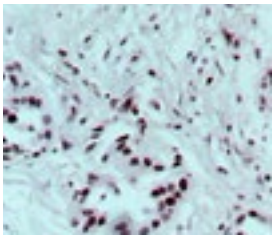
Hsa-miR-15a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM015A-100 (ASR*)
Specificity:	miR-15a
Recommended Positive Control:	TS-HM015A

miR-15a might function as a tumor suppressor in the disease, and its expression has been reported to be lower in multiple tumor tissue than in normal tissue. The fluorescinated hsa-miR-15a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-15b

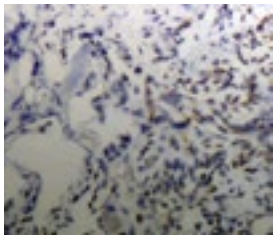


Hsa-miR-15b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM015B-100 (ASR*)
Specificity:	miR-15b
Recommended Positive Control:	TS-HM015B

MiR-15b plays an important role in DNA damage response and repair mechanisms, thus protects cells from genotoxic stress. Recently, it has been reported that the expression of miR-15b may be altered following exposure to various genotoxic stressors including radiation, hydrogen peroxide and etoposide. The fluorescinated hsa-miR-15b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-18a

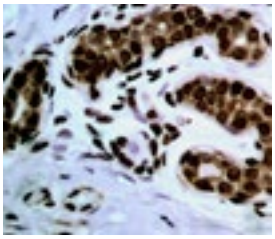


Hsa-miR-18a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM018A-100 (ASR*)
Specificity:	miR-18a
Recommended Positive Control:	TS-HM018A

Hsa-miR-18a is located in the miR-17-92 cluster and reported to be highly expressed in multiple tumor tissues. The fluorescinated hsa-miR-18a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-17

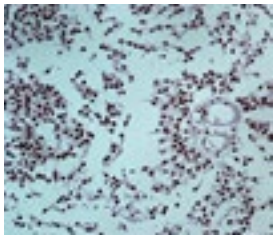


Hsa-miR-17 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM017-100 (ASR*)
Specificity:	miR-17
Recommended Positive Control:	TS-HM017

miR-17-92 is a polycistronic microRNA cluster that contains multiple microRNA components, each of which has a potential to regulate hundreds of target mRNAs. The fluorescinated hsa-miR-17 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-19a

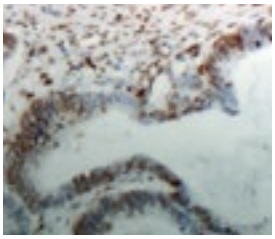


Hsa-miR-19a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM019A-100 (ASR*)
Specificity:	miR-19a
Recommended Positive Control:	TS-HM019A

The suppressor of cytokine signaling 1 (SOCS1) is a novel target of miR-19a and miR-19a expression is inversely correlated with SOCS1 expression in tumor cells and tissues. The fluorescinated hsa-miR-19a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-17-3p

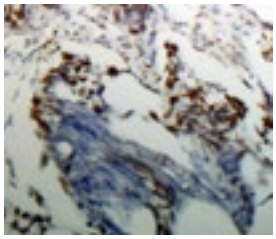


Hsa-miR-17-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM017-3P-100 (ASR*)
Specificity:	miR-17-3p
Recommended Positive Control:	TS-HM017-3P

Tumor cell proliferation, colony formation, cell survival and invasion. Both miR-17-5p and miR-17-3p repressed TIMP metallopeptidase inhibitor 3 (TIMP3) expression. The fluorescinated hsa-miR-17-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-19b-3p



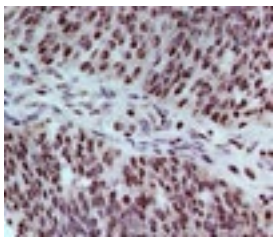
Hsa-miR-19b-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM019B-3P-100 (ASR*)
Specificity:	miR-19b-3p
Recommended Positive Control:	TS-HM019B-3P

miR-19b-3p was identified to be the novel potential plasma miRNA candidate to detect some tumors. The fluorescinated hsa-miR-19a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-20a

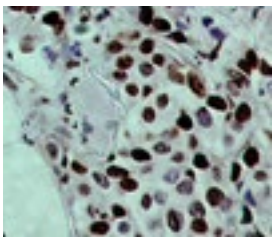


Hsa-miR-20a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM020A-100 (ASR*)
Specificity:	miR-20a
Recommended Positive Control:	TS-HM020A

miR-20a was up-regulated in some tumor tissue and it contributed to tumor progression. The fluorescinated hsa-miR-20a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-22

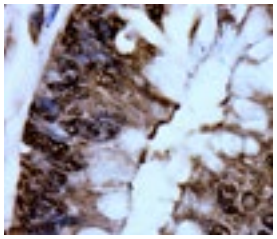


Hsa-miR-22 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM022-100 (ASR*)
Specificity:	miR-22
Recommended Positive Control:	TS-HM022

miR-22 sequence locates on the short arm of chromosome 17, in a minimal loss of heterozygosity region. miR-22 was found to be dysregulated in tumor tissue. The fluorescinated hsa-miR-22 probe is designed to localize this miRNA in FFPE tissue by in situ hybridizatio

Hsa-miR-21

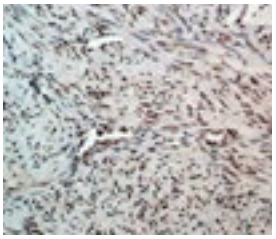


Hsa-miR-21 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM021-100 (ASR*)
Specificity:	miR-21
Recommended Positive Control:	TS-HM021

miR-21 is shown to involve in diverse biologic processes such as cell differentiation, proliferation, and apoptosis, presumably by modulating target proteins. The target genes of miR-21 include PTEN and programmed cell death 4 (PDCD4). The fluorescinated hsa-miR-21 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-23a

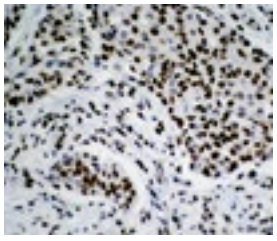


Hsa-miR-23a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM23A-100 (ASR*)
Specificity:	miR-23a
Recommended Positive Control:	TS-HM23A

miR-23a is a miRNA cluster located in chromosome 19p13.12, which can function as an oncogene in several human malignancies. The fluorescinated hsa-miR-23a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-21-3p

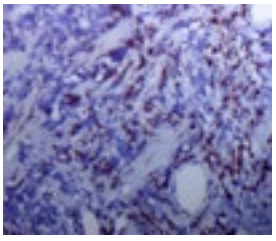


Hsa-miR-21-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM021-3p-100 (ASR*)
Specificity:	miR-21-3p
Recommended Positive Control:	TS-HM021-3P

miR-21-3p has been shown to directly reduce the expression of two methionine adenosyltransferase genes by targeting their 3′-UTRs. The overexpression of miR-21-3p increases intracellular S-adenosylmethionine contents. The fluorescinated hsa-miR-21-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-23b



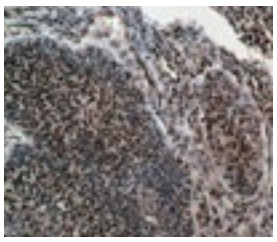
Hsa-miR-23b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM023B-100 (ASR*)
Specificity:	miR-23b
Recommended Positive Control:	TS-HM023B

miR-23b dysregulation may be associated with tumor progression. The fluorescinated hsa-miR-23b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-24-2-5p

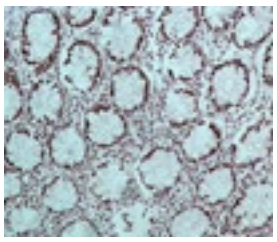


Hsa-miR-24-2-5p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM24-2-5P-100 (ASR*)
Specificity:	miR-24-2-5p
Recommended Positive Control:	TS-HM24-2-5P

miR-24 governs cellular development and proliferation, acting as a tumor suppressor or oncogene in a cell type-specific manner. Multiple studies have demonstrated that miR-24 regulates the cell cycle both positively and negatively. The fluorescinated hsa-miR-24-2-5p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-26a

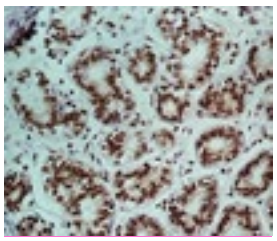


Hsa-miR-26A detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM026A-100 (ASR*)
Specificity:	miR-26a
Recommended Positive Control:	TS-HM026A

miR-26 expression is induced in response to hypoxia and upregulated during smooth muscle cell (SMC) differentiation and neurogenesis. Moreover, miR-26 is consistently down-regulated in a wide range of malignant tumors. The fluorescinated hsa-miR-26a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-24-3p

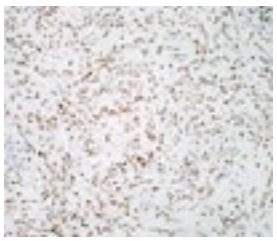


Hsa-miR-24-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM024-3P-100 (ASR*)
Specificity:	miR-24-3p
Recommended Positive Control:	TS-HM024-3P

Recently, it has been shown that overexpression of miR-24-3p could alter T-cell proliferation and affect cellular gene expression through downregulation of mitogen activated protein kinase (MAPK) pathway. Thus imply the clinical relevance and prognostic value of tumor-derived exosomal miR-24-3p in T-cell dysfunction. The fluorescinated hsa-miR-24-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-27a

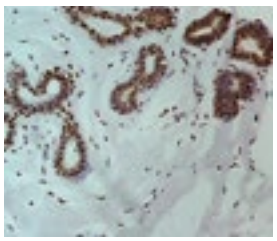


Hsa-miR-27A detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM027A-100 (ASR*)
Specificity:	miR-27a
Recommended Positive Control:	TS-HM027A

Data suggested that miR-27a suppresses ZBTB10/RINZF expression, and this novel zinc finger protein inhibits Sp1-dependent activation of the gastrin gene promoter. The fluorescinated hsa-miR-27a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-25

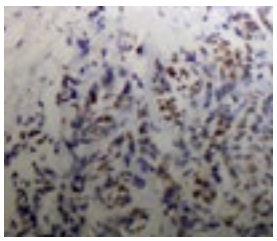


Hsa-miR-25 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM25-100 (ASR*)
Specificity:	miR-25
Recommended Positive Control:	TS-HM25

miR-25 levels increase in human heart failure, and treatment with an anti-sense RNA molecule was recently reported to halt disease progression and improves cardiac function. The fluorescinated hsa-miR-25 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-27b



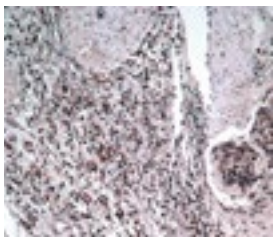
Hsa-miR-27b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	Hsa-miR-27b (ASR*)
Specificity:	miR-27b
Recommended Positive Control:	TS-HM027B

miR-27b has been identified as an oncogenic microRNA and is highly expressed in tumor cells. Inhibition of miR-27 by antisense molecules decreases cell proliferation. The fluorescinated hsa-miR-27b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-28-3p

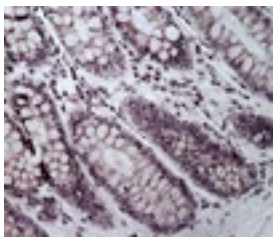


Hsa-miR-28-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM028-3P-100 (ASR*)
Specificity:	miR-28-3p
Recommended Positive Control:	TS-HM028-3P

miR-28-3p is down-regulated in tumor samples compared with normal samples. miR-28-3p increase tumor cell migration and invasion in vitro. The fluorescinated hsa-miR-28-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-29b-3p

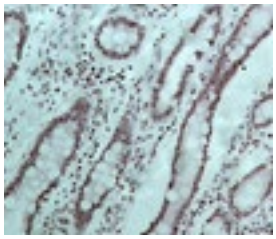


Hsa-miR-29b-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM29B-3P-100 (ASR*)
Specificity:	miR-29b-3p
Recommended Positive Control:	TS-HM29B-3P

miR-29b-3p was found to be dysregulated in several tumor tissues. The fluorescinated hsa-miR-29b-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-28-5p

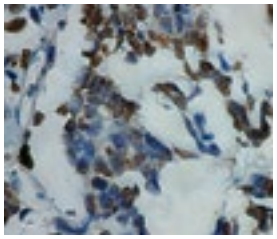


Hsa-miR-28-5p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM028-5P-100 (ASR*)
Specificity:	miR-28-5p
Recommended Positive Control:	TS-HM028-5P

miR-28-5p is down-regulated in tumor samples compared with normal tissue. miR-28-5p increase tumor cell migration and invasion in vitro. The fluorescinated hsa-miR-28-5p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization

Hsa-miR-29c

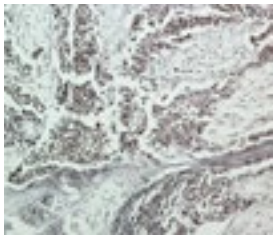


Hsa-miR-29c detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM029C-100 (ASR*)
Specificity:	miR-29c
Recommended Positive Control:	TS-HM29C

Mir-29 microRNA families are involved in regulation of various types of tumors. mir-29 was shown to play an inhibitory role in tumorigenesis. Many mammalian genomes encode four closely related miR-29 precursors that are transcribed in two transcriptional units. The fluorescinated hsa-miR-29c probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-29a

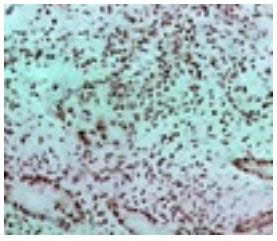


Hsa-miR-29a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM29A-100 (ASR*)
Specificity:	miR-29a
Recommended Positive Control:	TS-HM29A

Ectopic expression of miR-29a in mouse hematopoietic stem cells (HSC) promoted self-renewal of myeloid progenitors, leading to a myeloproliferative disorder. The fluorescinated hsa-miR-29a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-30b



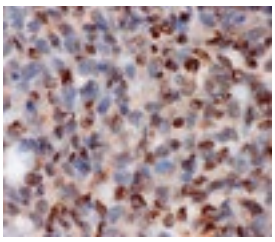
Hsa-miR-30b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM030B-100 (ASR*)
Specificity:	miR-30b
Recommended Positive Control:	TS-HM030B

miR-30b promoted the metastatic behavior of tumor cells by directly targeting the GalNAc transferase GALNT7, which resulted in increased synthesis of the immunosuppressive cytokine IL-10, and reduced immune cell activation and recruitment. The fluorescinated hsa-miR-30b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-30c

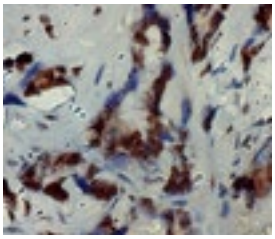


Hsa-miR-30c detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM030C-100 (ASR*)
Specificity:	miR-30c
Recommended Positive Control:	TS-HM030C

miR-30c involved in regulating a number of tumor associated genes. It has been shown that the integrin ITGB3 and the ubiquitin conjugating E2 enzyme (UBC9) are downregulated by miR-30. It has also been suggested that the TP53 protein may be a target of miR-30c and miR-30e. Members of the miR-30 family have been found to be highly expressed in heart cells. The fluorescinated hsa-miR-30c probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-30e

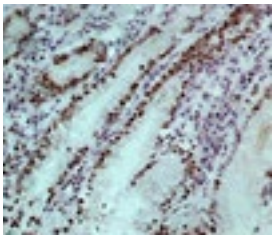


Hsa-miR-30e detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM030E-100 (ASR*)
Specificity:	miR-30e
Recommended Positive Control:	TS-HM030E

miR-30e involved in regulating a number of tumor associated genes. It has been shown that the integrin ITGB3 and the ubiquitin conjugating E2 enzyme (UBC9) are downregulated by miR-30. It has also been suggested that the TP53 protein may be a target of miR-30c and miR-30e. Members of the miR-30 family have been found to be highly expressed in heart cells. The fluorescinated hsa-miR-30e probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-31

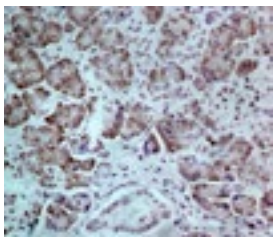


Hsa-miR-31 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM031-100 (ASR*)
Specificity:	miR-31
Recommended Positive Control:	TS-HM031

miR-31 is known as a tumor suppressor miRNA. miR-31 is frequently deleted and is the most underexpressed microRNA in certain tumors. It has been shown to affect the levels of tumor suppressor protein p53. The fluorescinated hsa-miR-31 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-34a

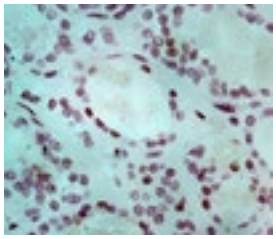


Hsa-miR-34a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM034A-100 (ASR*)
Specificity:	miR-34a
Recommended Positive Control:	TS-HM034A

The human miR-34a precursor is transcribed from chromosome 1. miR-34a itself is a transcriptional target of p53, suggesting a positive feedback loop between p53 and miR-34a. Thus, miR-34a functions as a tumor suppressor, in part, through a SIRT1-p53 pathway. miR-34 dysregulation is involved in the development of some tumors. The fluorescinated hsa-miR-34a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-34c

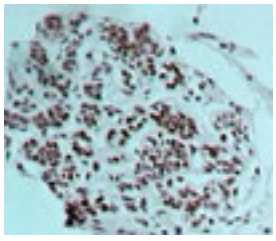


Hsa-miR-34c detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM34C-100 (ASR*)
Specificity:	miR-34c
Recommended Positive Control:	TS-HM34C

miR-34c has also been reported to be downregulated in several tumor types. Moreover, dysregulation of miR-34c has been proven to regulate tumor cell proliferation, apoptosis, senescence, migration and invasion. The fluorescinated hsa-miR-34c probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-92a



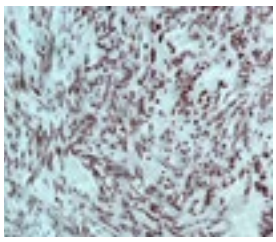
Hsa-miR-92a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM092A-100 (ASR*)
Specificity:	miR-92a
Recommended Positive Control:	TS-HM092A

miR-92a is highly expressed in some tumors. The fluorescinated hsa-miR-92a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-95



Hsa-miR-95 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM095-100 (ASR*)
Specificity:	miR-95
Recommended Positive Control:	TS-HM095

miR-95 expression was up-regulated in some tumors miR-95 increased proliferation by directly targeting SNX1. miR-95 expression levels correlated inversely with SNX1 protein levels. The fluorescinated hsa-miR-95 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

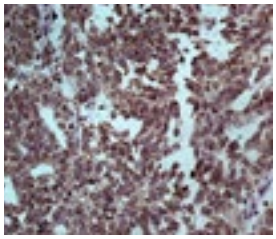
Hsa-miR-96

Hsa-miR-96 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM096-100 (ASR*)
Specificity:	miR-96
Recommended Positive Control:	TS-HM096

miR-96 expression decreases the transcript and protein levels of FOXO1 by binding to one of two predicted binding sites in the FOXO1 3'-UTR sequence. The fluorescinated hsa-miR-96 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-98

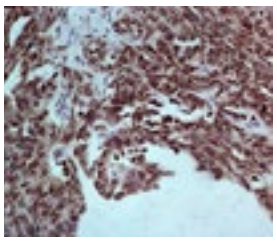


Hsa-miR-98 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM098-100 (ASR*)
Specificity:	miR-98
Recommended Positive Control:	TS-HM098

The ectopic expression of miR-98 inhibited tumor cell proliferation, invasion, and angiogenesis through repressing ALK4 and MMP11 expression. The fluorescinated hsa-miR-98 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-99a

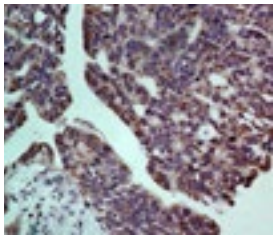


Hsa-miR-99a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM099A-100 (ASR*)
Specificity:	miR-99a
Recommended Positive Control:	TS-HM099A

miR-99 family members miR-99a, -99b, and -100 were downregulated in tumor cell lines relative to the parental cell lines. miR-99 family members were also downregulated in human tumor tissue compared with normal tissue. The fluorescinated hsa-miR-99a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-99b

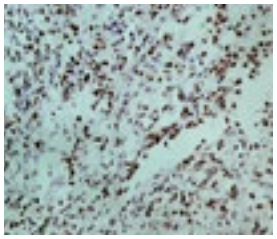


Hsa-miR-99b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM099B-100 (ASR*)
Specificity:	miR-99b
Recommended Positive Control:	TS-HM099B

miR-99 family members miR-99a, -99b, and -100 were downregulated in tumor cell lines relative to the parental cell lines. miR-99 family members were also downregulated in human tumor tissue compared with normal tissue. The fluorescinated hsa-miR-99b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-100



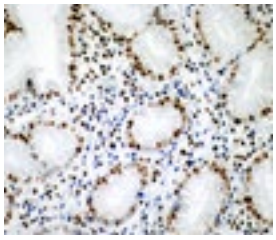
Hsa-miR-100 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM100-100 (ASR*)
Specificity:	miR-100
Recommended Positive Control:	TS-HM100

m miR-100 is lost in many tumors and have potential function as a tumor suppressor. miR-100 inhibits the tumorigenicity, motility and invasiveness of tumor cells, and is commonly downregulated in human tumors due to hypermethylation. The fluorescinated hsa-miR-100 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-101-3p

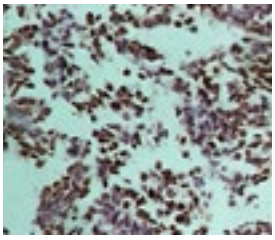


Hsa-miR-101-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM101-3P-100 (ASR*)
Specificity:	miR-101-3p
Recommended Positive Control:	TS-HM101-3P

NDY1 up-regulation is shown to trigger the binding of EZH2 and NDY1 to the miR-101 locus. Activation of this pathway is essential for the epigenetic regulation of gene expression elicited by FGF-2. The fluorescinated hsa-miR-101-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-122

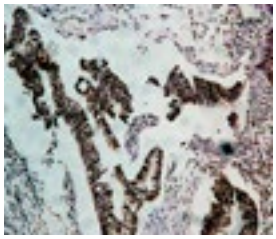


Hsa-miR-122 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM122-100 (ASR*)
Specificity:	miR-122
Recommended Positive Control:	TS-HM122

miR-122 is specifically repressed in a subset of primary tumors that are characterized by poor prognosis. The loss of miR-122 results in an increase of cell migration and invasion and that restoration of miR-122 reverses this phenotype. miR-122 is a marker of hepatocyte-specific differentiation and an important determinant in the control of cell migration and invasion. The fluorescinated hsa-miR-122 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-106a

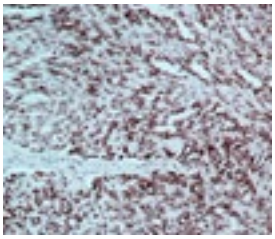


Hsa-miR-106a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM106A-100 (ASR*)
Specificity:	miR-106a
Recommended Positive Control:	TS-HM106A

Sp1 and Egr1 are found to have an important role in miR-106a transcription and thus indirectly regulate the expression of IL-10 post-transcriptionally. The fluorescinated hsa-miR-106a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-124

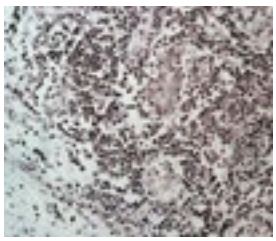


Hsa-miR-124 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM124-100 (ASR*)
Specificity:	miR-124
Recommended Positive Control:	TS-HM124

The mature miR-124 sequence is processed from 3 separate premature sequences, located at chromosomes 8p23.1 (miR-124-1), 8q12.3 (miR-124-2) and 20q13.33 (miR-124-3). The fluorescinated hsa-miR-124 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-107

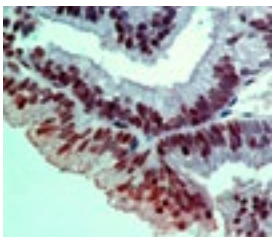


Hsa-miR-107 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM107-100 (ASR*)
Specificity:	miR-107
Recommended Positive Control:	TS-HM107

miR-107 is a microRNA expressed by human tumor specimens and regulated by p53. miR-107 decreases hypoxia signaling by suppressing expression of hypoxia inducible factor-1 (HIF-1). miR-107 may have a tumor suppressor function by directly targeting CDK6 to inhibit the proliferation and invasion activities. The fluorescinated hsa-miR-107 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-125a



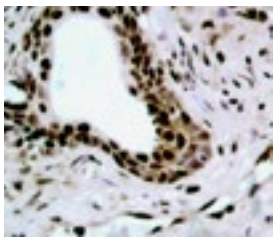
Hsa-miR-125a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM125A-100 (ASR*)
Specificity:	miR-125a
Recommended Positive Control:	TS-HM125A

miR-125 family has been reported to be implicated in a variety of tumors and other diseases as either repressors or promoters. miR-125 family play crucial roles in many different cellular processes like cell differentiation, proliferation and apoptosis by targeting many different transcription factors ,matrix-metalloprotease, and growth factors. The fluorescinated hsa-miR-125a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-125b

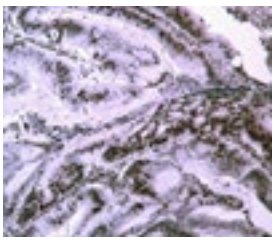


Hsa-miR-125b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM125B-100 (ASR*)
Specificity:	miR-125b
Recommended Positive Control:	TS-HM125B

Enforced miR-125b expression in mammary cells is shown to decrease cell proliferation by inducing G2/M cell cycle arrest and reduced anchorage-independent cell growth of cells of mammary origin. The fluorescinated hsa-miR-125b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-129

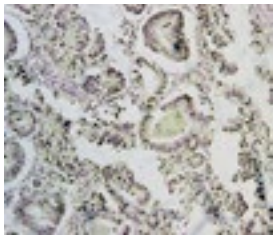


Hsa-miR-129 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM129-100 (ASR*)
Specificity:	miR-129
Recommended Positive Control:	TS-HM129

miR-129-5p expression is down-regulated in several tumor types. miR-129-5p promotes apoptosis and enhances chemosensitivity, while decreased miR-129-5p expression, as a result of hypermethylation of the miR-129 promoter, is associated with poor clinicopathological factors, such as clinical stage and progression in several tumors. The fluorescinated hsa-miR-129 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-126

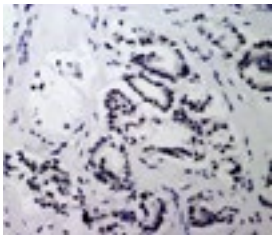


Hsa-miR-126 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM126-100 (ASR*)
Specificity:	miR-126
Recommended Positive Control:	TS-HM126

miR-126 is a microRNA expressed predominately by endothelial cells and controls angiogenesis. The fluorescinated hsa-miR-126 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-130b

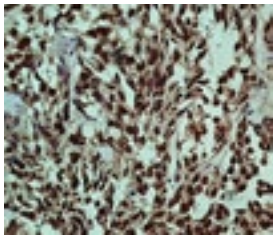


Hsa-miR-130b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM130B-100 (ASR*)
Specificity:	miR-130b
Recommended Positive Control:	TS-HM130B

MiR-130b, located at the 22q11 locus, plays an oncogenic or suppressive role in several tumors. The fluorescinated hsa-miR-130b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-127-3p

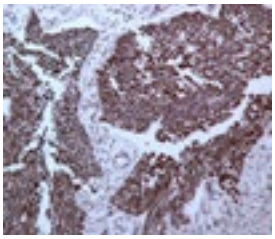


Hsa-miR-127-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM127-3P-100 (ASR*)
Specificity:	miR-127-3p
Recommended Positive Control:	TS-HM127-3P

miR-127 is highly expressed in normal prostate and bladder tissues. miR-127 functions to regulate the expression levels of genes involved in lung development, placental formation and apoptosis. The fluorescinated hsa-miR-127-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-132



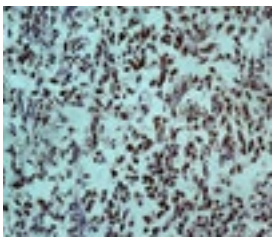
Hsa-miR-132 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM132-100 (ASR*)
Specificity:	miR-132
Recommended Positive Control:	TS-HM132

miR-132, transcribed from an intergenic region on human chromosome 17, is aberrantly expressed in many tumor types. The fluorescinated hsa-miR-132 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-133a

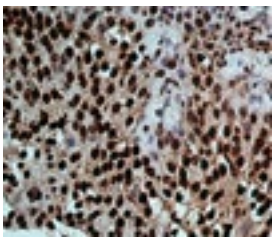


Hsa-miR-133a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM133A-100 (ASR*)
Specificity:	miR-133a
Recommended Positive Control:	TS-HM133A

miR-133a is downregulated in some tumor types. The fluorescinated hsa-miR-133a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-133b

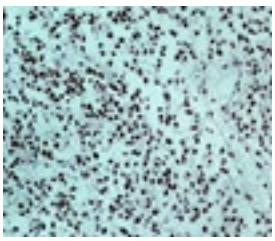


Hsa-miR-133b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM133B-100 (ASR*)
Specificity:	miR-133b
Recommended Positive Control:	TS-HM133B

miR-133b is significantly downregulated in many tumor types. The fluorescinated hsa-miR-133b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-135a

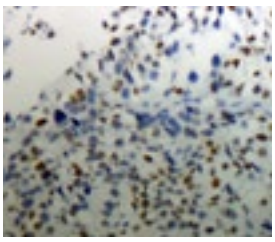


Hsa-miR-135a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM135A-100 (ASR*)
Specificity:	miR-135a
Recommended Positive Control:	TS-HM135A

miR-135a is significantly downregulated in the tumor cell lines and plays a tumor-suppressive role. miR-135a expression is downregulated in the majority of human tumor tissues compared with pair-matched adjacent non-tumor tissues. The fluorescinated hsa-miR-135a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-135b

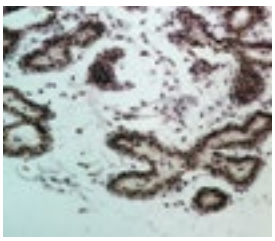


Hsa-miR-135b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM135B-100 (ASR*)
Specificity:	miR-135b
Recommended Positive Control:	TS-HM135B

miR-135b is involved in the progression of several types of tumors and it is frequently dysregulated in tumor tissue. The fluorescinated hsa-miR-135b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-136

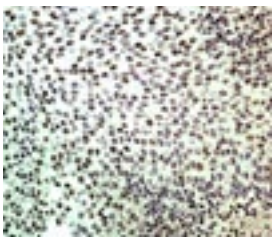


Hsa-miR-136 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM136-100 (ASR*)
Specificity:	miR-136
Recommended Positive Control:	TS-HM136

miR-136 was significantly downregulated in tumor specimens. The low-level expression of miR-136 is significantly associated with a more aggressive and/or poor prognostic phenotype. The fluorescinated hsa-miR-136 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-137



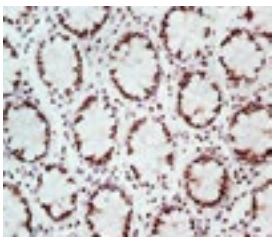
Hsa-miR-137 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM137-100 (ASR*)
Specificity:	miR-137
Recommended Positive Control:	TS-HM137

Recently studies revealed that miR-137 play essential roles in tumorigenesis. miR-137 modulates tumor cell growth, invasion and sensitivity. miR-137 was significantly down-regulated in tumors and inhibited proliferation of tumor cells by targeting PAK2. The fluorescinated hsa-miR-137 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-138

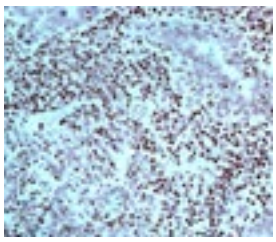


Ready-to-use (Manual):	HM138-100 (ASR*)
Specificity:	miR-138
Recommended Positive Control:	TS-HM138

Hsa-miR-138 detected in FFPE tissue stained with DAB

The down-regulation of microRNA-138 has been frequently observed in tumors with decreased levels of cell proliferation and colony formation. The fluorescinated hsa-miR-138 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-142-3p

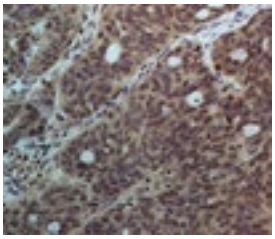


Ready-to-use (Manual):	HM142-3P-100 (ASR*)
Specificity:	miR-142-3p
Recommended Positive Control:	TS-HM142-3P

Hsa-miR-142-3p detected in FFPE tissue stained with DAB

miR-142-3p is involved in the progression of several tumor types. The fluorescinated hsa-miR-142-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-140

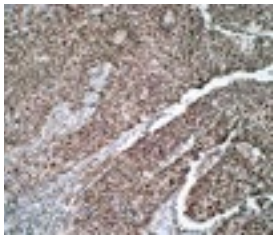


Ready-to-use (Manual):	HM140-100 (ASR*)
Specificity:	miR-140
Recommended Positive Control:	TS-HM140

Hsa-miR-140 detected in FFPE tissue stained with DAB

miR-140 functions as a tumor suppressor in many tumors and is significantly downregulated in human tumor tissues. Overexpression of miR-140 inhibited tumor growth, invasion, and metastasis. The fluorescinated hsa-miR-140 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-143

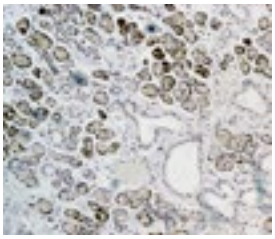


Ready-to-use (Manual):	HM143-100 (ASR*)
Specificity:	miR-143
Recommended Positive Control:	TS-HM143

Hsa-miR-143 detected in FFPE tissue stained with DAB

miR-143 specifically targets PKCε and regulates its expression. Anti-miR-143 promotes cell proliferation, decreases apoptosis and up-regulates PKCε expression. The fluorescinated hsa-miR-143 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-141

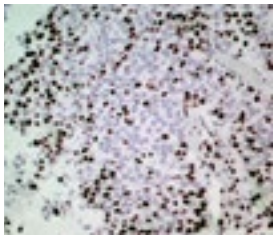


Ready-to-use (Manual):	HM141-100(ASR*)
Specificity:	miR-141
Recommended Positive Control:	TS-HM141

Hsa-miR-141 detected in FFPE tissue stained with DAB

miR-141, along with miR-200c, is an important member of the miR-200 family for regulating the epithelial to mesenchymal transition. The fluorescinated hsa-miR-141 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-144



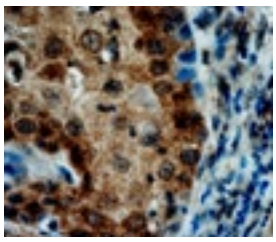
Ready-to-use (Manual):	HM144-100 (ASR*)
Specificity:	miR-144
Recommended Positive Control:	TS-HM144

Hsa-miR-144 detected in FFPE tissue stained with DAB

miR-144 is shown to promote cell proliferation, migration and invasion through repression of PTEN and targeted by zinc finger X-chromosomal protein. The fluorescinated hsa-miR-144 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-146a

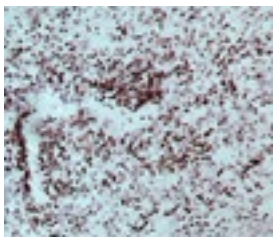


Hsa-miR-146a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM146A-100 (ASR*)
Specificity:	miR-146a
Recommended Positive Control:	TS-HM146A

miR-146a plays a mechanistic role of in endotoxin-induced differential cross-regulation of TLR Signaling. The fluorescinated hsa-miR-146a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-148a

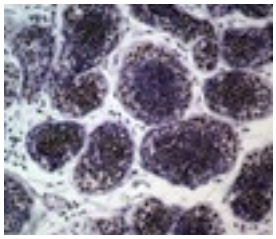


Hsa-miR-148a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM148A-100 (ASR*)
Specificity:	miR-148a
Recommended Positive Control:	TS-HM148A

miR-148a expression is downregulated in several types of tumors and plays multiple roles as a tumor suppressor. The fluorescinated hsa-miR-148a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-146b

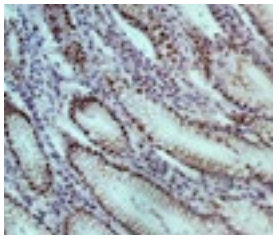


Hsa-miR-146b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM146B-100 (ASR*)
Specificity:	miR-146b
Recommended Positive Control:	TS-HM146B

The expression of miR-146b-5p is known to be dysregulated in solid tumors and acts either as a tumor suppressor or promoter. The fluorescinated hsa-miR-146b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-148b

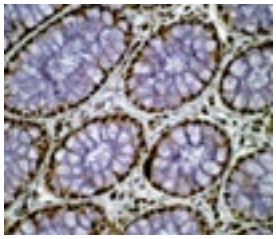


Hsa-miR-148b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM148B-100 (ASR*)
Specificity:	miR-148b
Recommended Positive Control:	TS-HM148B

miR-148b was significantly downregulated in human tumors. Overexpression of miR-148b suppressed the growth of tumor cells, attributable to induction of apoptosis and cell-cycle arrest at S-phase. The fluorescinated hsa-miR-148b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-147b

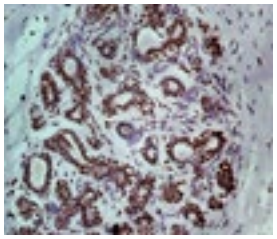


Hsa-miR-147b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM147B-100 (ASR*)
Specificity:	miR-147b
Recommended Positive Control:	TS-HM147B

Studies demonstrated the participation of miR-147b in a negative feedback loop that is able to inhibit the pro-inflammatory response of macrophages to multiple TLR ligands. The fluorescinated hsa-miR-147b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-149



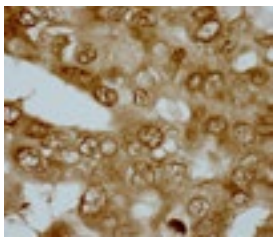
Hsa-miR-149 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM149-100 (ASR*)
Specificity:	miR-149
Recommended Positive Control:	TS-HM149

miR-149 has been identified to be a suppressor of tumor metastasis. Increased miR-149 levels block lung colonization in vivo. Low level of miR-149 and high level of GIT1 was significantly associated with advanced stages of tumor, as well as with lymph node metastasis. The fluorescinated hsa-miR-149 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-150

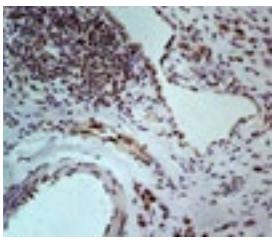


Hsa-miR-150 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM150-100 (ASR*)
Specificity:	miR-150
Recommended Positive Control:	TS-HM150

miR-150 is mainly expressed in the lymph nodes and spleen and is highly up-regulated during the development of mature T and B cells. The fluorescinated hsa-miR-150 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization

Hsa-miR-153

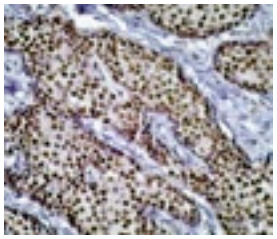


Hsa-miR-153 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM153-100 (ASR*)
Specificity:	miR-153
Recommended Positive Control:	TS-HM153

miR-153 upregulation promoted tumor invasiveness by indirectly initiating matrix metalloprotease enzyme 9 productions. Overexpression of miR-153 in tumor cells enhanced the G1/S transitional promoter, cyclin D1 expression, and decreased cyclin-dependent kinase (CDK) inhibitor, p21(Cip1) expression via downregulation of PTEN tumor suppressor gene and activated AKT signaling. The fluorescinated hsa-miR-153 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-151a-3p

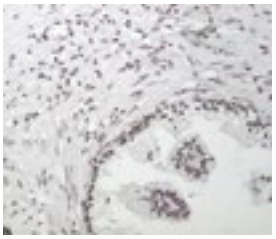


Hsa-miR-151a-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM151A-3p-100 (ASR*)
Specificity:	miR-151a-3p
Recommended Positive Control:	TS-HM151A-3P

miR-151a has been demonstrated to be directly regulated by the p53-family of transcription factors and contributes to the tuning of p53-induced responses. The fluorescinated hsa-miR-151a-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-154

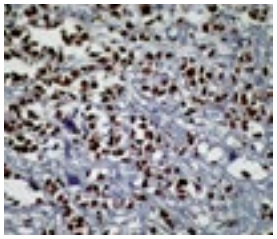


Hsa-miR-154 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM154-100 (ASR*)
Specificity:	miR-154
Recommended Positive Control:	TS-HM154

miR-154 is deregulated and functions as a candidate tumor suppressor in some tumors. miR-154 was decreased in tumor tissues and cell lines. Ectopic expression of miR-154 remarkably suppressed cell proliferation and colony formation, migration and invasion. The fluorescinated hsa-miR-154 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-152-3p

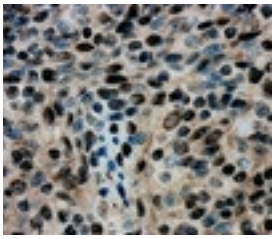


Hsa-miR-152-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM152-3p-100 (ASR*)
Specificity:	miR-152-3p
Recommended Positive Control:	TS-HM152-3P

miR-152 is suggested to play a role in S-phase and G2/M-phase cell cycle progression of diploid fibroblasts. The fluorescinated hsa-miR-152-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-155



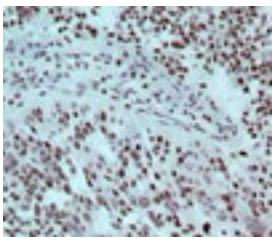
Hsa-miR-155 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM155-100 (ASR*)
Specificity:	miR-155
Recommended Positive Control:	TS-HM155

miR-155 is expressed in a variety of immune cell types and present at low levels in most of these cells until their activation by immune stimuli such as toll-like receptor ligands. The fluorescinated hsa-miR-155 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-181a

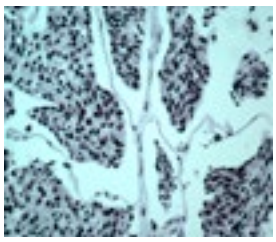


Hsa-miR-181a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM181A-100 (ASR*)
Specificity:	miR-181a
Recommended Positive Control:	TS-HM181A

miR-181a expression was upregulated in metastatic tumors and serves as a predictive biomarker for metastasis and patient survival. miR-181a expression is highly associated with the development of metastatic disease. The fluorescinated hsa-miR-181a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-182

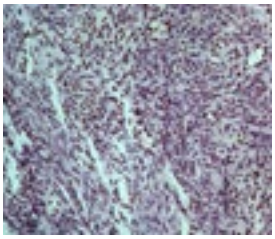


Hsa-miR-182 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM182-100 (ASR*)
Specificity:	miR-182
Recommended Positive Control:	TS-HM182

miR-182, member of a miRNA cluster is located at chromosomal locus 7q31–34, is commonly overexpressd in many tumor types. The fluorescinated hsa-miR-182 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-181b

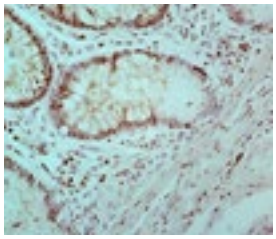


Hsa-miR-181b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM181B-100 (ASR*)
Specificity:	miR-181b
Recommended Positive Control:	TS-HM181B

The downregulated miR-181b was involved in oncogenesis. miR-181b functioned as tumor suppressors which triggered growth inhibition, induced apoptosis and inhibited invasion in tumor cells. The fluorescinated hsa-miR-181b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-183

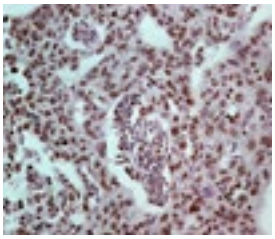


Hsa-miR-183 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM183-100 (ASR*)
Specificity:	miR-183
Recommended Positive Control:	TS-HM183

The level of miR-183 expression in tumor tissue has been reported to be higher than adjacent normal tissues, and miR-183 regulates diverse mediators of tumor survival and function, including targeting the tumor suppressor Bmi-1, EGR1, PTEN and SMAD4. The fluorescinated hsa-miR-183 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-181c

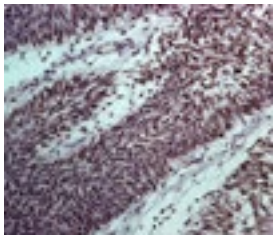


Hsa-miR-181c detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM181C-100 (ASR*)
Specificity:	miR-181c
Recommended Positive Control:	TS-HM181C

Aberrant miR-181c expression is related to many tumor types. The fluorescinated hsa-miR-181c probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-183-3p



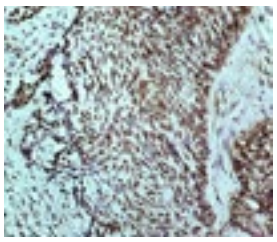
Hsa-miR-183-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM183-3P-100 (ASR*)
Specificity:	miR-183-3p
Recommended Positive Control:	TS-HM183-3P

miR-183-3p was up-regulated in tumor tissues when compared with the corresponding normal tissues. Moreover, the expression of miR-183-3p in tumor tissue was found to be associated with lymph node metastasis, clinical stage, and EGFR mutation. The fluorescinated hsa-miR-183-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-184

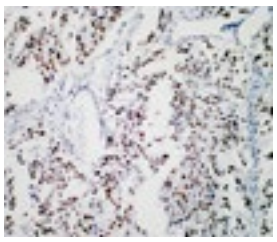


Hsa-miR-184 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM184-100 (ASR*)
Specificity:	miR-184
Recommended Positive Control:	TS-HM184

miR-184 may be oncogenic or tumor suppressive in different tumor types. The fluorescinated hsa-miR-184 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-187

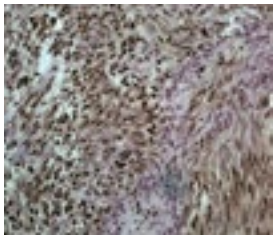


Hsa-miR-187 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM187-100 (ASR*)
Specificity:	miR-187
Recommended Positive Control:	TS-HM187

miR-187 is shown to overexpress in the subtype exhibiting loss of chromosome 11q but not in the MYCN amplified subtype. The fluorescinated hsa-miR-187 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-185

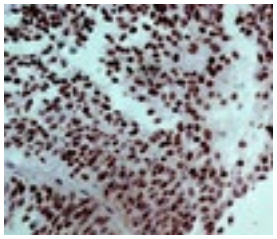


Hsa-miR-185 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM185-100 (ASR*)
Specificity:	miR-185
Recommended Positive Control:	TS-HM185

miR-185 has been identified as an important factor in several tumors. This relates to the fact that miR-185 is closely associated with tumor size, pTNM stage, lymph node, and perneural invasion. The fluorescinated hsa-miR-185 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-191

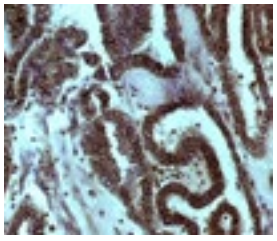


Hsa-miR-191 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM191-100 (ASR*)
Specificity:	miR-191
Recommended Positive Control:	TS-HM191

miR-191 has been found to be dysregulated in a large number of different types of human tumors. The fluorescinated hsa-miR-191 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-186

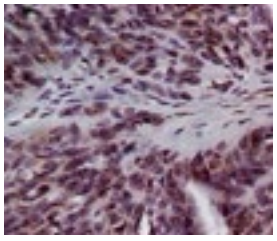


Hsa-miR-186 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM186-100 (ASR*)
Specificity:	miR-186
Recommended Positive Control:	TS-HM186

Overexpression of miR-186 in tumor cells inhibited proliferation by inducing G1–S checkpoint arrest. miR-186 expression promoted cell-cycle progression and accelerated the proliferation of tumor cells. The fluorescinated hsa-miR-186 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-192



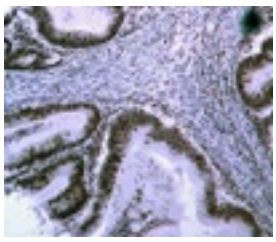
Hsa-miR-192 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM192-100 (ASR*)
Specificity:	miR-192
Recommended Positive Control:	TS-HM192

miR-192 is thought to be positive regulators of p53, a human tumor suppressor. It has also been suggested that mir-192 could be used as a biomarker for drug-induced liver damage The fluorescinated hsa-miR-192 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-193a-3p

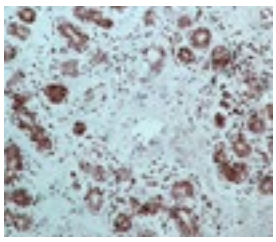


Hsa-miR-193a-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM193A-3P-100 (ASR*)
Specificity:	miR-193a-3p
Recommended Positive Control:	TS-HM193A-3P

miR-193a-3p induces the accumulation of intracellular reactive oxygen species, DNA damage in tumor cells. Furthermore, miR-193a-3p directly recognizes the 3′-UTR of the ERBB4 transcript and regulates ERBB4 expression, one of four ErbB receptor tyrosine kinase family members. The fluorescinated hsa-miR-193a-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-195

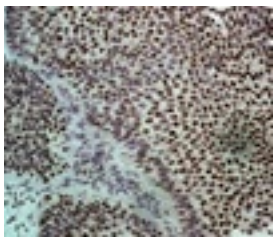


Hsa-miR-195 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM195-100 (ASR*)
Specificity:	miR-195
Recommended Positive Control:	TS-HM195

miR-195 is aberrantly expressed in multiple types of disease. miR-195 was significantly downregulated in tumors. The fluorescinated hsa-miR-195 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-193b

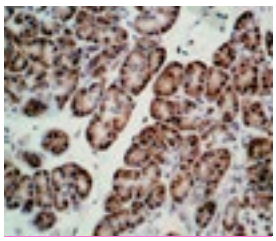


Hsa-miR-193b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM193B-100 (ASR*)
Specificity:	miR-193b
Recommended Positive Control:	TS-HM193B

Aberrant expression of miR-193b is frequently observed in tumor tissuer and it acts as a tumor suppressor in many types of tumors. miR-193b is down-regulated in tumor tissue and can promote tumorigenesis by inhibiting stathmin 1 and urokinase-type plasminogen activator (uPA). The fluorescinated hsa-miR-193b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-196a

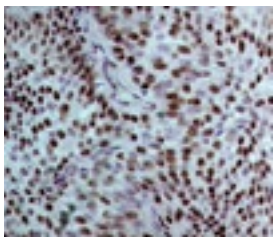


Hsa-miR-196a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM196A-100 (ASR*)
Specificity:	miR-196a
Recommended Positive Control:	TS-HM196A

miR-196a is a microRNA that suppresses the expression of specific homeobox genes that are of high relevance for the development of human embryos. The fluorescinated hsa-miR-196a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-194

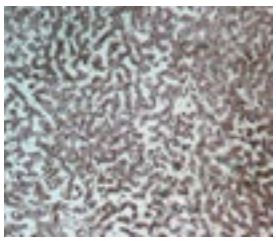


Hsa-miR-194 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM194-100 (ASR*)
Specificity:	miR-194
Recommended Positive Control:	TS-HM194

miR-194 is expressed in liver parenchymal cells, and in human gastrointestinal tract. miR-194 plays a role in the activation of stellate cells during liver fibrogenesis. miR-194 expression varies in human organs and in different status of hepatocyte differentiation. miR-194 is an epithelial cell-specific marker in the liver. The fluorescinated hsa-miR-194 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-197



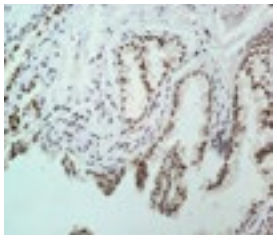
Hsa-miR-197 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM197-100 (ASR*)
Specificity:	miR-197
Recommended Positive Control:	TS-HM197

miR-197 is an onco-miR which functions as a key repressor of p53-dependent apoptotic cascade in tumor cells. The fluorescinated hsa-miR-197 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-198

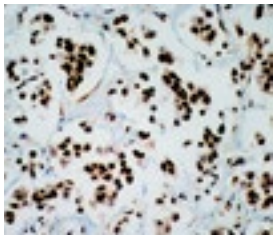


Hsa-miR-198 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM198-100 (ASR*)
Specificity:	miR-198
Recommended Positive Control:	TS-HM198

It has been reported that several genes can be targeted by miR-198 in different type of tumors and miR-198 has different functions during tumor progression. miR-198 has been shown to be a tumor suppressor by inhibition of tumor cell growth, migration and invasion. The fluorescinated hsa-miR-198 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-199a

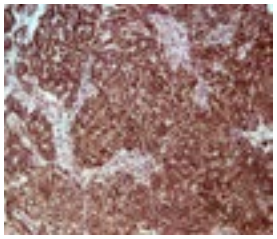


Hsa-miR-199a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM199A-100 (ASR*)
Specificity:	miR-199a
Recommended Positive Control:	TS-HM199A

miR-199a, which is encoded from the opposite strand of DNM2 (Dynamin 2 is a key component of endocytic machinery that is transcriptionally suppressed by HIF-1), is shown to exert reciprocal negative regulation upon HIF-1α and HIF-2α. The fluorescinated hsa-miR-199a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-200a

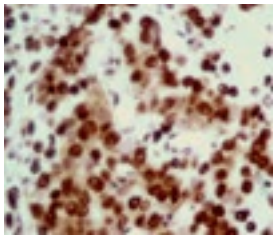


Hsa-miR-200a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM200A-100 (ASR*)
Specificity:	miR-200a
Recommended Positive Control:	TS-HM200A

Gain and loss of function assays for miR-200a is shown to lead to a significant differential and converse expression of epithelial mesenchymal transition (EMT)-related genes. The fluorescinated hsa-miR-200a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-200b

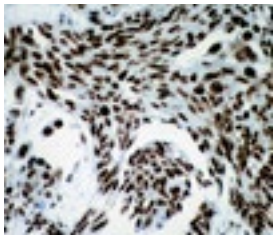


Hsa-miR-200b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM200B-100 (ASR*)
Specificity:	miR-200b
Recommended Positive Control:	TS-HM200B

miR-200b targets v-ets erythroblastosis virus E26 oncogene homolog 1 (Ets-1) and is down-regulated by hypoxia to induce angiogenic response of endothelial cells. The fluorescinated hsa-miR-200b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-200c

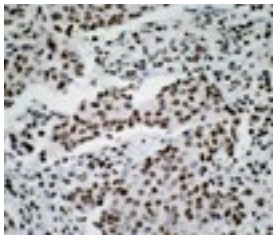


Hsa-miR-200c detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM200C-100 (ASR*)
Specificity:	miR-200c
Recommended Positive Control:	TS-HM200C

Overexpression of the miR-200c is reported to lead to reduced expression of transcription factor 8 and increased expression of E-Cadherin. The fluorescinated hsa-miR-200c probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-203a-3p



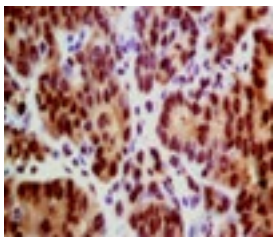
Hsa-miR-203a-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM203A-3p-100 (ASR*)
Specificity:	miR-203a-3p
Recommended Positive Control:	TS-HM203A-3P

miR-203 is an antiproliferative microRNA involved in skin differentiation that targets the 3'-UTR of the "stemness-maintaining" transcription factor ΔNp63α. The fluorescinated hsa-miR-203a-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-204

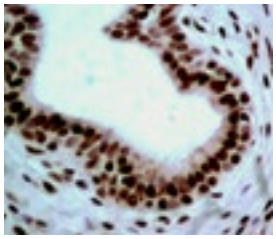


Hsa-miR-204 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM204-100 (ASR*)
Specificity:	miR-204
Recommended Positive Control:	TS-HM204

miR-204 targeting of the Ankrd13A gene is found to control both nesenchymal neural crest and lens cell migration. The fluorescinated hsa-miR-204 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-205

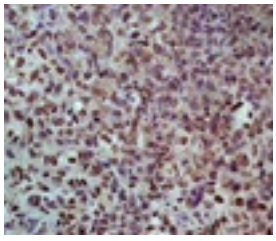


Hsa-miR-205 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM205-100 (ASR*)
Specificity:	miR-205
Recommended Positive Control:	TS-HM205

miR-205 is capable of suppressing epithelial to mesenchymal transition by targeting the transcriptional factors ZEB1 and SIP1. miR-205 has also been shown to regulate E-Cadherin and possibly target PTEN. The fluorescinated hsa-miR-205 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-206

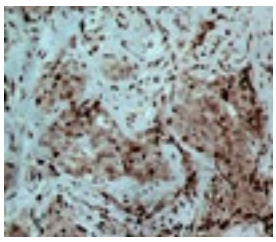


Hsa-miR-206 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM206-100 (ASR*)
Specificity:	miR-206
Recommended Positive Control:	TS-HM206

miR-206 targets HSP60 leading to accelerated glucose-mediated apoptosis in cardiomyocetes. miR-206 is reported to decrease endogenous ERα mRNA and protein levels. The fluorescinated hsa-miR-206 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-210

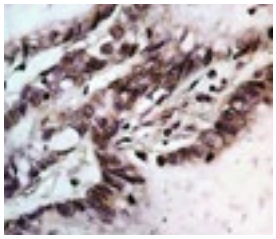


Hsa-miR-210 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM210-100 (ASR*)
Specificity:	miR-210
Recommended Positive Control:	TS-HM210

miR-210 has been strongly linked with the hypoxia pathway, and is upregulated in response to hypoxia-inducible factors. It is also overexpressed in cells affected by cardiac disease and tumors. miR-210 has been studied for its effects in rescuing cardiac function after myocardial infarcts via the up-regulation of angiogenesis and inhibition of cardiomyocyte apoptosis. The fluorescinated hsa-miR-210 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-211

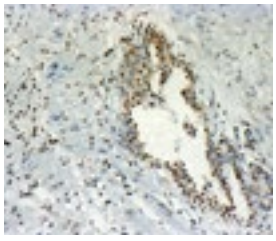


Hsa-miR-211 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM211-100 (ASR*)
Specificity:	miR-211
Recommended Positive Control:	TS-HM211

miR-211 is localized on intron 6 of the Trpm1 gene at 15q13-q14, a locus that is frequently lost in neoplasms. miR-211 functions and the effect of loss-of-function have been described in normal and tumor tissues. The fluorescinated hsa-miR-211 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-212



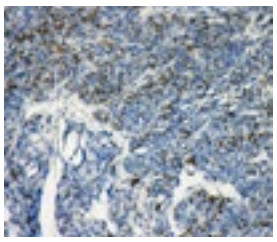
Hsa-miR-212 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM212-100 (ASR*)
Specificity:	miR-212
Recommended Positive Control:	TS-HM212

miR-212 expression is essential for the proper development, maturation and function of neurons. miR-212 deregulation is associated with several neurological disorders, such as Alzheimer's disease. The fluorescinated hsa-miR-212 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-214

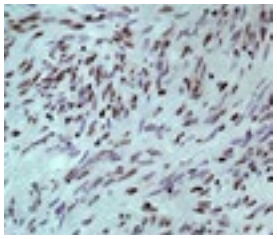


Hsa-miR-214 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM214-100 (ASR*)
Specificity:	miR-214
Recommended Positive Control:	TS-HM214

miR-214 expression level is associated with metastasis and invasion of tumors. miR-214 could inhibit the proliferation capacity, migration and invasion ability of HeLa cells. Plexin-B1, a target of miR-214, may function as an oncogene in human tumor HeLa cells. The fluorescinated hsa-miR-214 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-215

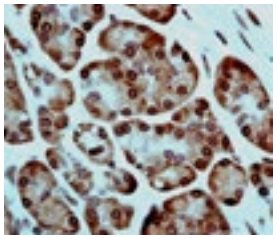


Hsa-miR-215 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM215-100 (ASR*)
Specificity:	miR-215
Recommended Positive Control:	TS-HM215

miR-215 identified from the microRNA cluster site at chromosome 1q41, has been reported to function as a tumor suppressor in a variety of human tumors by positive regulate p53. miR-215 suppressed the expression of key targets such as thymidylate synthase (TS), dihydrofolate reductase, and denticleless protein homolog (DTL). The fluorescinated hsa-miR-215 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-216a

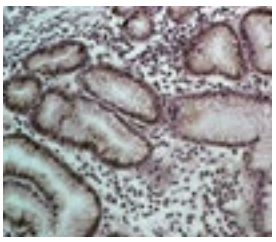


Hsa-miR-216a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM216A-100 (ASR*)
Specificity:	miR-216a
Recommended Positive Control:	TS-HM216A

It was shown that TGF-β activates Akt in glomerular mesangial cells by inducing the miR-216a and miR-217, both of which target PTEN, an inhibitor of Akt activation. The fluorescinated hsa-miR-216a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-216b

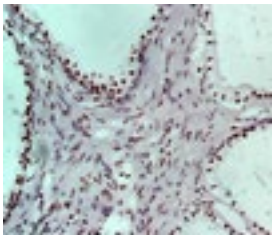


Hsa-miR-216b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM216B-100 (ASR*)
Specificity:	miR-216b
Recommended Positive Control:	TS-HM216B

miR-216b was identified as a tumor suppressor in many tumors. Forced expression of miR-216b in RInk-1 cells inhibits cell proliferation and colony formation, which is correlated with reduced expression levels of epidermal growth factor receptor and matrix metalloproteinase-14 (MT1-MMP). Furthermore, miR-216b is dysregulated in bone marrow mesenchymal stem cells, and is associated with nonalcoholic fatty liver disease. The fluorescinated hsa-miR-216b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-217

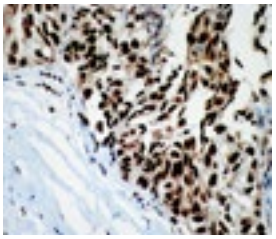


Hsa-miR-217 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM217-100 (ASR*)
Specificity:	miR-217
Recommended Positive Control:	TS-HM217

miR-217 targets oncogenes or tumor suppressor genes such as KRAS/WASF3 in different cell types by inhibiting tumor cell growth and anchorage-independent colony formation. The fluorescinated hsa-miR-217 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-218



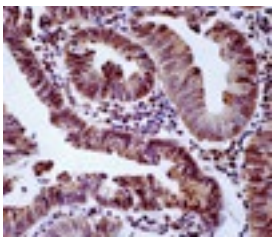
Hsa-miR-218 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM218-100 (ASR*)
Specificity:	miR-218
Recommended Positive Control:	TS-HM218

miR-218 is reported to be part of a regulatory circuit involving the Slit-Robo1 pathway. Decreased miR-218 levels eliminate Robo1 repression which activates the pathway through the interaction between Robo1 and Slit2. The fluorescinated hsa-miR-218 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-221-3p

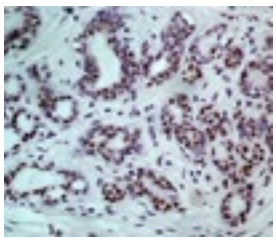


Hsa-miR-221-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM221-3p-100 (ASR*)
Specificity:	miR-221-3p
Recommended Positive Control:	TS-HM221-3P

miR-221, together with miR-222, is encoded in tandem from a gene cluster located on chromosome X. Both miRNAs have been shown to directly target p27kip1, Bmf, PTEN, Mdm2, PUMA, and TRPS1. The fluorescinated hsa-miR-221-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-224

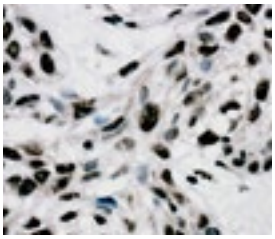


Hsa-miR-224 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM224-100 (ASR*)
Specificity:	miR-224
Recommended Positive Control:	TS-HM224

miR-224 could play an oncogenic role in the cellular processes of tumors. miR-224 has been shown to be involve in the tumorigenesis and development. The fluorescinated hsa-miR-224 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-222

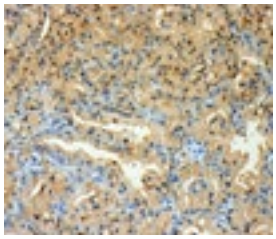


Hsa-miR-222 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM222-100 (ASR*)
Specificity:	miR-222
Recommended Positive Control:	TS-HM222

miR-222, together with miR-221, is encoded in tandem from a gene cluster located on chromosome X. Both miRNAs have been shown to directly target p27kip1, Bmf, PTEN, Mdm2, PUMA, and TRPS1. The fluorescinated hsa-miR-222 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-296

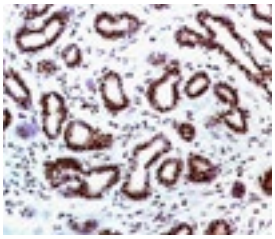


Hsa-miR-296 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM296-100 (ASR*)
Specificity:	miR-296
Recommended Positive Control:	TS-HM296

miR-296 was found to be located on chromosome 20q13.32, and it was reported that the 20q13.32–13.33 chromosome region is deleted in 20% of tumor tissues. In a recent study, it was demonstrated that miR-296 modulates tumor invasiveness by modulating HMGA1 expression. The fluorescinated hsa-miR-296 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-223

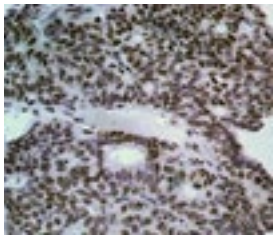


Hsa-miR-223 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM223-100 (ASR*)
Specificity:	miR-223
Recommended Positive Control:	TS-HM223

miR-223 is a hematopoietic specific microRNA with crucial functions in myeloid lineage development. It plays an essential role in promoting granulocytic differentiation. In some tumors the miR-223 downregulation is correlated with higher tumor burden, disease aggressiveness, and poor prognostic factors. The fluorescinated hsa-miR-223 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-297



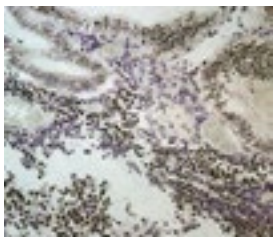
Hsa-miR-297 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM297-100 (ASR*)
Specificity:	miR-297
Recommended Positive Control:	TS-HM297

miR-297 was downregulated in human tumor tissues and negatively correlated with expression levels of MRP-2. The fluorescinated hsa-miR-297 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-300

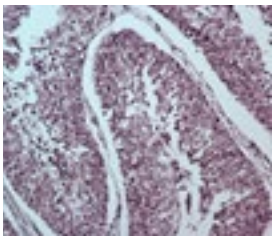


Hsa-miR-300 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM300-100 (ASR*)
Specificity:	miR-300
Recommended Positive Control:	TS-HM300

miR-300 was upregulated in several tumor types. miR-300 inhibits epithelial to mesenchymal transition and metastasis by targeting Twist. The fluorescinated hsa-miR-300 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-330

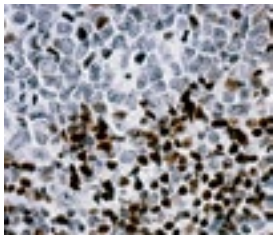


Hsa-miR-330 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM330-100 (ASR*)
Specificity:	miR-330
Recommended Positive Control:	TS-HM330

The expression of miR-330 in tumor cells enhanced cellular proliferation, promoted cell migration and invasion, and dampened cell apoptosis. The fluorescinated hsa-miR-330 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-328

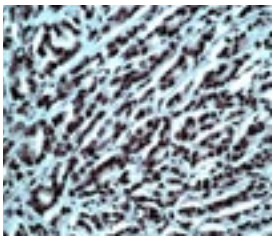


Hsa-miR-328 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM328-100 (ASR*)
Specificity:	miR-328
Recommended Positive Control:	TS-HM328

A study shows that miR-328 regulates zonation morphogenesis by targeting expression of hyaluronan receptor CD44. The fluorescinated hsa-miR-328 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-331-3p

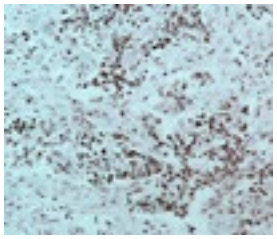


Hsa-miR-331-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM331-3P-100 (ASR*)
Specificity:	miR-331-3p
Recommended Positive Control:	TS-HM331-3P

miR-331-3p expression is decreased in tumor tissue comparing to normal tissue. The fluorescinated hsa-miR-331-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-329

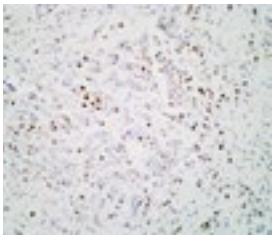


Hsa-miR-329 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM329-100 (ASR*)
Specificity:	miR-329
Recommended Positive Control:	TS-HM329

miR-329 functions as a tumor suppressor in some malignancies. miR-329 was decreased in metastatic tumor tissues compared with primary tumor tissues. Overexpression of miR-329 substantially suppressed cell proliferation, colony formation, migration and invasion of tumor cells. The fluorescinated hsa-miR-329 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-335



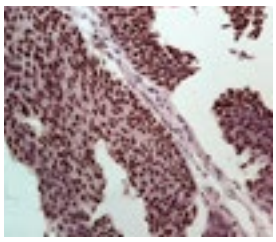
Hsa-miR-335 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM335-100 (ASR*)
Specificity:	miR-335
Recommended Positive Control:	TS-HM335

Differential microRNA expression analyses reveal that miR-335 is significantly down-regulated upon differentiation of human mesenchymal stem cells. The fluorescinated hsa-miR-335 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-338-3p

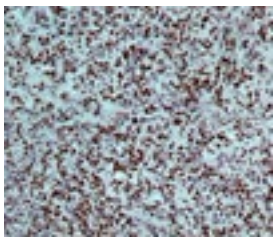


Hsa-miR-338-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM338-3P-100 (ASR*)
Specificity:	miR-338-3p
Recommended Positive Control:	TS-HM338-3P

miR-338-3p was transcribed from the intron 8 of apoptosis-associated tyrosine kinase (AATK) gene, located on chromosome 17q25, playing a critical role in promoting cell death, neuronal differentiation and neurite extension. miR-338-3p could act as a tumor suppressor in several tumor types. The fluorescinated hsa-miR-338-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-361

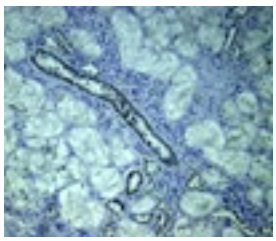


Hsa-miR-361 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM361-100 (ASR*)
Specificity:	miR-361
Recommended Positive Control:	TS-HM361

miR-361 was significantly downregulated in serum of tumor patients. The level of miR-361 was lower in tumor than in benign disease and healthy individuals. The fluorescinated hsa-miR-361 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-339-5p

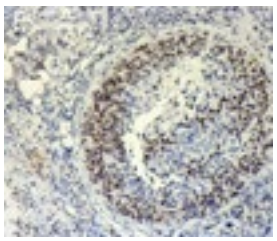


Hsa-miR-339-5p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM339-5P-100 (ASR*)
Specificity:	miR-339-5p
Recommended Positive Control:	TS-HM339-5P

miR-339-5p targets BCL-6 and dramatically inhibited tumor cell migration and invasion in vitro. In addition, it has been reported that Dicer-regulated miR-339-5p promotes resistance of tumor cells to cytotoxic T-lymphocytes by down-regulation of ICAM-1. The fluorescinated hsa-miR-339-5p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-362

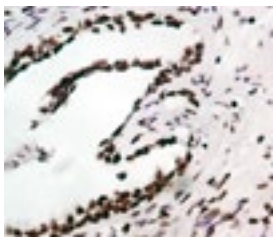


Hsa-miR-362 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM362-100 (ASR*)
Specificity:	miR-362
Recommended Positive Control:	TS-HM362

miR-362 is significantly up-regulated in tumor and associated with tumor progression. Inhibition of miR-362 in tumor cells dramatically decrease the cell proliferation, clonogenicity, migration and invasion in vitro as well as tumor growth and metastasis in vivo. The fluorescinated hsa-miR-362 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-342-3p

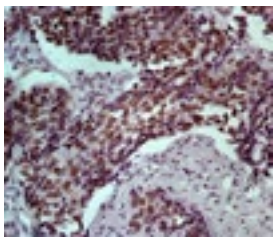


Hsa-miR-342-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM342-3P-100 (ASR*)
Specificity:	miR-342-3p
Recommended Positive Control:	TS-HM342-3P

The level of miR-342-3p was significantly increased in tumor, and was inversely associated with the prognosis of patients. The fluorescinated hsa-miR-342-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-365a-3p



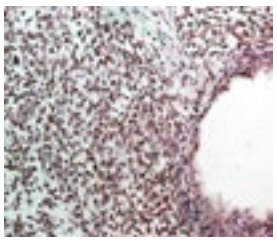
Hsa-miR-365a-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM365A-3P-100 (ASR*)
Specificity:	miR-365a-3p
Recommended Positive Control:	TS-HM365A-3P

miR-365 is a direct negative regulator of IL-6. Ectopic expression of a miR-365 inhibitor elevated IL-6 expression. The negative regulation of miR-365 was strictly dependent on a microRNA binding element in the 3'-UTR of IL-6 mRNA. The fluorescinated hsa-miR-365a-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-372

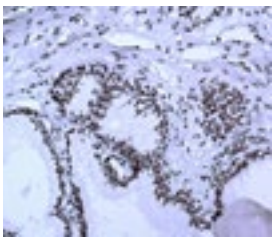


Hsa-miR-372 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM372-100 (ASR*)
Specificity:	miR-372
Recommended Positive Control:	TS-HM372

miR-372 belongs to the miR-371-372 gene cluster, which is located on chromosome 19q13.42. Recent studies demonstrated that miR-372 regulates the cell cycle, apoptosis, invasion, and proliferation in many types of human tumors. The fluorescinated hsa-miR-372 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-374b

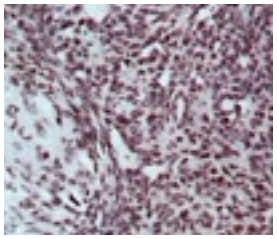


Hsa-miR-374b detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM374B-100 (ASR*)
Specificity:	miR-374b
Recommended Positive Control:	TS-HM374B

miR-374b is downregulated in tumor tissue and is an independent predictor of biochemical recurrence-free survival. The fluorescinated hsa-miR-374b probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-373

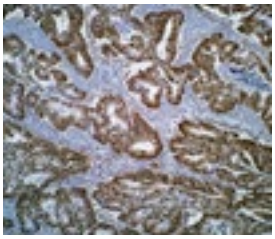


Hsa-miR-373 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM373-100 (ASR*)
Specificity:	miR-373
Recommended Positive Control:	TS-HM373

miR-373 stimulated tumor cell migration and invasion in vitro and in vivo. Certain tumor cell lines depend on endogenous miR-373 activity to migrate efficiently. The fluorescinated hsa-miR-373 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-375

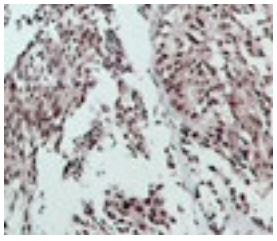


Hsa-miR-375 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM375-100 (ASR*)
Specificity:	miR-375
Recommended Positive Control:	TS-HM375

It has been shown that overexpression of miR-375 down-regulates while knockdown of miR-375 up- regulates CLDN1 mRNA and protein, respectively. The fluorescinated hsa-miR-375 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-374a

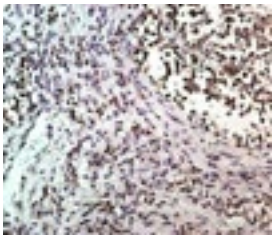


Hsa-miR-374a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM374A-100 (ASR*)
Specificity:	miR-374a
Recommended Positive Control:	TS-HM374A

miR-374a was overexpressed in the tumors. Besides, miR-374a was involved in the tumorigenesis and metastasis by regulating the Wnt/catenin pathway. The fluorescinated hsa-miR-374a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-376c



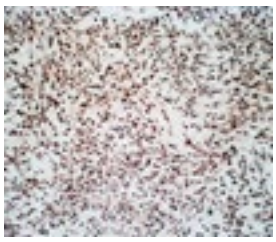
Hsa-miR-376c detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM376C-100 (ASR*)
Specificity:	miR-376c
Recommended Positive Control:	TS-HM376C

miR-376c was found to have potential complementary binding sites on the 3′UTR of ALK7 mRNA. miR-376c belongs to an evolutionary conserved miRNA family which also includes miR-376a, miR-376a* and miR-376b, and these genes are found in a syntenic cluster on human chromosome 14. The fluorescinated hsa-miR-376c probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-378a

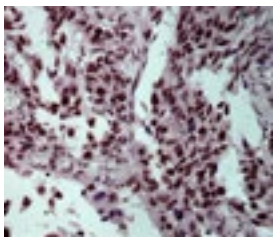


Hsa-miR-378a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM378A-100 (ASR*)
Specificity:	miR-378a
Recommended Positive Control:	TS-HM378A

miRNA-378 promotes cell survival and angiogenesis by targeting SuFu and Fus-1 expression. The fluorescinated hsa-miR-378a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization

Hsa-miR-383

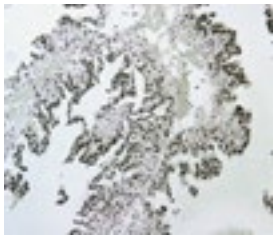


Hsa-miR-383 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM383-100 (ASR*)
Specificity:	miR-383
Recommended Positive Control:	TS-HM383

Downregulation of miR-383 promotes tumor cell invasion by targeting IGF1R. miR-383 promoted the expression of miR-320 and enhanced miR-320-mediated suppression of granulosa cell (GC) proliferation. miR-383 was up-regulated in the follicular fluid of polycystic ovarian syndrome (PCOS) patients, while the expression of E2F1 and SF-1 was down-regulated in GCs. The fluorescinated hsa-miR-383 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-379

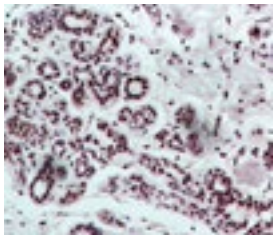


Hsa-miR-379 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM379-100 (ASR*)
Specificity:	miR-379
Recommended Positive Control:	TS-HM379

miR-379, is located on chromosome 14q32, 31. In the context of tumor, miR-379 regulates interleukin-11 (IL-11) production and decreased in tumor. The fluorescinated hsa-miR-379 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-409-3p

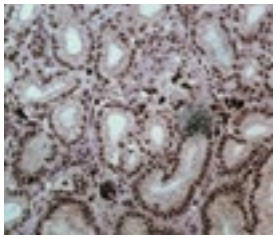


Hsa-miR-409-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM409-3P-100 (ASR*)
Specificity:	miR-409-3p
Recommended Positive Control:	TS-HM409-3P

miR-409-3p was significantly downregulated in tumor cell lines and tissues. Overexpression of miR-409-3p in SGC-7901 tumor cells dramatically suppressed cell proliferation and induced cell apoptosis both in vitro and in vivo. The transcriptional regulator PHF10 was a target of miR-409-3p. The fluorescinated hsa-miR-409-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-381

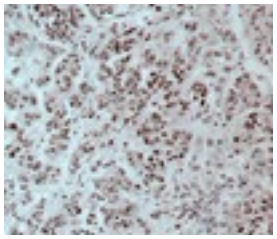


Hsa-miR-381 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM381-100 (ASR*)
Specificity:	miR-381
Recommended Positive Control:	TS-HM381

Recent functional studies have demonstrated that miR-381 serves as a tumor suppressor and is associated with radio-sensitivity in tumor cells. Overexpression of miRNA-381 confers increased radio-sensitivity of tumor cells, promotes nonaggressive phenotype, and growth inhibition. miRNA-381 exerts its biological functions through the regulation of various target genes, such as MITF, LRRC4, ID1, MDR1, BRD7, and WEE1. The fluorescinated hsa-miR-381 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-410



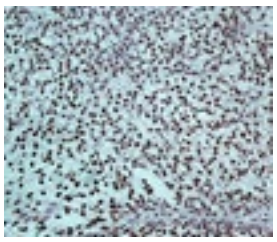
Hsa-miR-410 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM410-100 (ASR*)
Specificity:	miR-410
Recommended Positive Control:	TS-HM410

miR-410 was significantly downregulated in the tumor tissue. The expression of miR-410 was inversely associated with MET in human tumor tissues. Restoring expression of miR-410 led to proliferation inhibition and reduced invasive capability . miR-410 plays an important role in regulating MET-induced AKT signal transduction. The fluorescinated hsa-miR-410 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-412

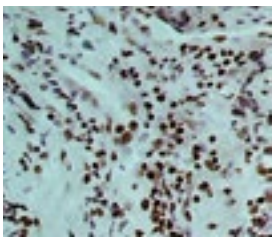


Hsa-miR-412 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM412-100 (ASR*)
Specificity:	miR-412
Recommended Positive Control:	TS-HM412

miR-412 was observed to be upregulated in the tumor tissues compared with normal tissues. mRNA bound to the AGO2 complex (RIP-Chip) identified a set of miR-412 target genes that are involved in neuronal cell death processes. The fluorescinated hsa-miR-412 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-424

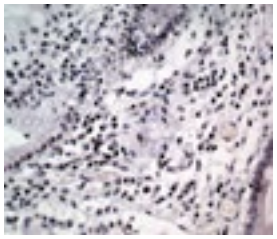


Hsa-miR-424 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM424-100 (ASR*)
Specificity:	miR-424
Recommended Positive Control:	TS-HM424

Hypoxia induces miR-424 expression and that miR-424 in turn suppresses the level of PDCD4 protein, a tumor suppressor .The inhibition of miR-424 enhanced apoptosis and increased the sensitivity of tumor cells. miR-424 levels are inversely correlated with PDCD4 expression in clinical tumor samples. The fluorescinated hsa-miR-424 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-422a

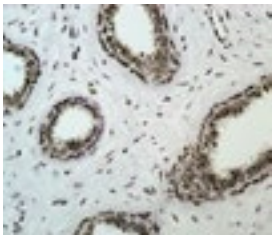


Hsa-miR-422a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM422A-100 (ASR*)
Specificity:	miR-422a
Recommended Positive Control:	TS-HM422A

miR-422a plays a protective role in tumors where significantly reduced expression has been observed in tumors when compared to the normal tissue counterparts. miR-422a also inhibits pathways that stimulate tumor cell proliferation. The fluorescinated hsa-miR-422a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-425

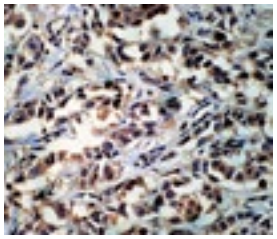


Hsa-miR-425 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM425-100 (ASR*)
Specificity:	miR-425
Recommended Positive Control:	TS-HM425

miR-425 has been identified as a potential biomarker in many types of tumors. miR-425 has been reported to promote tumorigenicity and aggressiveness in tumors. The fluorescinated hsa-miR-425 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-423-3p

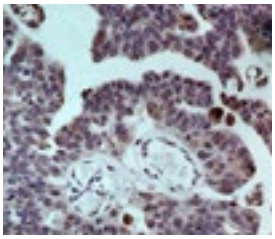


Hsa-miR-423-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM423-3P-100 (ASR*)
Specificity:	miR-423-3p
Recommended Positive Control:	TS-HM423-3P

miR-423 is located on chromosome 17 and lies within the first intron of the gene nuclear speckle splicing regulatory protein (NSRP1) which is involved in alternate splicing of mRNAs. The fluorescinated hsa-miR-423-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-429



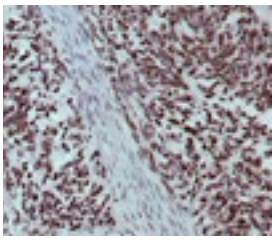
Hsa-miR-429 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM429-100 (ASR*)
Specificity:	miR-429
Recommended Positive Control:	TS-HM429

miR-429, a member of the miR-200 family of microRNAs, was significantly downregulated in tumor tissues and cell lines. miR-429 inhibited the proliferation and growth of tumor cells in vitro and in vivo. Downregulation of miR-429 may contribute to carcinogenesis and the initiation of epithelial–mesenchymal transition (EMT) by targeting Onecut2. The fluorescinated hsa-miR-429 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-449a

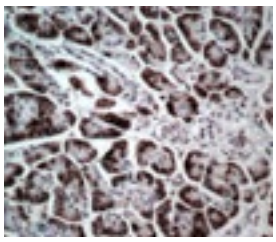


Hsa-miR-449a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM449A-100 (ASR*)
Specificity:	miR-449a
Recommended Positive Control:	TS-HM449A

miR-449a is downregulated in human tumor tissue and possesses potential tumor suppressor function. miR-449a-mediated growth arrest in tumor cells is dependent on the Rb protein. The fluorescinated hsa-miR-449a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-483

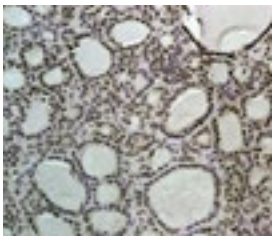


Hsa-miR-483 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM483-100 (ASR*)
Specificity:	miR-483
Recommended Positive Control:	TS-HM483

miR-483 is located within intron 2 of the IGF2 locus. The expression level of miR-483 alone can accurately diagnose a tumor as benign or malignant. miR-483 also highly expressed in colon, breast and liver tumor. The fluorescinated hsa-miR-483 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-450b-3p

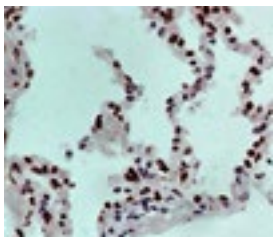


Hsa-miR-450b-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM450B-3P-100 (ASR*)
Specificity:	miR-450b-3p
Recommended Positive Control:	TS-HM450B-3P

miR-450b-3p inhibits HER3 expression and represses the downstream signal transductions of HER family. Overexpression of miR-450b-3p inhibits tumor cells clonogenic potential and enhances their sensitivity to trastuzumab, a monoclonal antibody that binds to the HER2 receptor, or doxorubicin through repressing proliferative signal pathways mediated by HER3/HER2/PI3K/AKT. The fluorescinated hsa-miR-450b-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-486

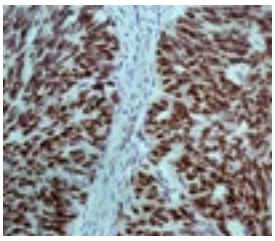


Hsa-miR-486 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM486-100 (ASR*)
Specificity:	miR-486
Recommended Positive Control:	TS-HM486

miR-486 plays a tumor-suppressor role. miR-486 is located at Chromosome 8p11, a region of frequent genomic loss in multiple tumors. miR-486 is significantly downregulated in tumor. miR-486 inactivation is required for the expression of several pro-oncogenic traits, and that this is likely mediated through miR-486 targeting the OLFM4 antiapoptotic factor. The fluorescinated hsa-miR-486 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-451

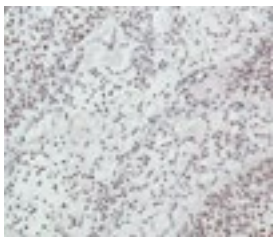


Hsa-miR-451 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM451-100 (ASR*)
Specificity:	miR-451
Recommended Positive Control:	TS-HM451

miR-451 gene is located on chromosome 17 at 17q11.2. miR-451 regulates the drug-transporter protein P-glycoprotein, potentially promoting resistance to the chemotherapy drug Paclitaxel. miRNA-451 is widely dysregulated in human tumors and plays a critical role in tumorigenesis and tumor progression. The fluorescinated hsa-miR-451 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-486-3p



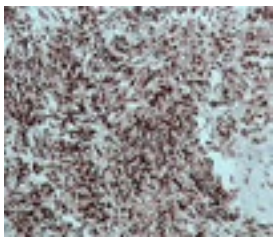
Hsa-miR-486-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM486-3P-100 (ASR*)
Specificity:	miR-486-3p
Recommended Positive Control:	TS-HM486-3P

miR-486-3p dysregulation was observed in several tumors. Overexpression of miR-486-3p resulted in a moderate decrease of mature erythroid cells, indicating a possible inhibitory effect on erythropoiesis. The fluorescinated hsa-miR-486-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-494

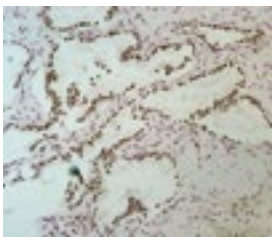


Hsa-miR-494 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM494-100 (ASR*)
Specificity:	miR-494
Recommended Positive Control:	TS-HM494

miR-494 regulates the expression of phosphatase and tensin homolog (PTEN) post-transcriptionally and functions as a micro-oncogene in carcinogenesis induced by anti-BPDE. The fluorescinated hsa-miR-494 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-502-5p

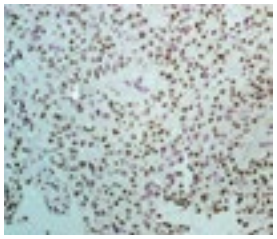


Hsa-miR-502-5p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM502-5P-100 (ASR*)
Specificity:	miR-502-5p
Recommended Positive Control:	TS-HM502-5P

The expression of miR-502 was downregulated in tumor patient specimens compared with the paired normal control samples. The fluorescinated hsa-miR-502-5p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-495

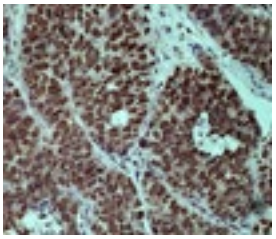


Hsa-miR-495 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM495-100 (ASR*)
Specificity:	miR-495
Recommended Positive Control:	TS-HM495

miR-495 was dramatically decreased in tumor cell lines and ectopic expression of miR-495 drastically retarded the proliferation and tumorigenicity in in vitro and in vivo assays, suggesting that downregulation of miR-495 may associate with features of tumor and that it functions as an antimir. The fluorescinated hsa-miR-495 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-505

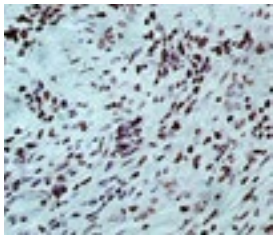


Hsa-miR-505 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM505-100 (ASR*)
Specificity:	miR-505
Recommended Positive Control:	TS-HM505

miR-505 functions as a tumor suppressive microRNA. FGF18, a proangiogenic factor, is directly regulated by miR-505. miR-505 inhibits cell proliferation by inducing apoptosis. The fluorescinated hsa-miR-505 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-497

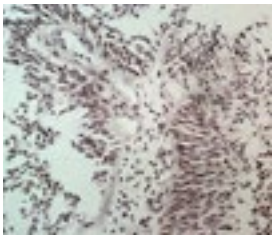


Hsa-miR-497 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM497-100 (ASR*)
Specificity:	miR-497
Recommended Positive Control:	TS-HM497

miR-497 locates at 17p13.1, and is frequently deleted in human tumors. miR-497 showed significant growth-suppressive activity with induction of G1 arrest. miR-497 overexpression led to the aberrant cell proliferation in hepatocarcinogenesis. The fluorescinated hsa-miR-497 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-508-3p



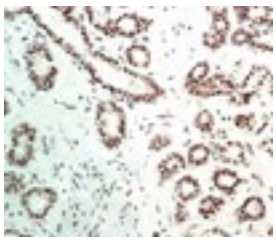
Hsa-miR-508-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM508-3P-100 (ASR*)
Specificity:	miR-508-3p
Recommended Positive Control:	TS-HM508-3p

miR-508-3p (member of the miR-506 family) is located on Xq27.3, which is a fragile site of the human X chromosome. The very limited reports about miR-508-3p are controversial according to different tumor types. The fluorescinated hsa-miR-508-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-509-3p

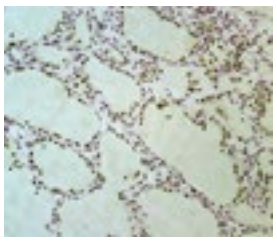


Hsa-miR-509-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM509-3P-100 (ASR*)
Specificity:	miR-509-3p
Recommended Positive Control:	TS-HM509-3P

It was reported that miR-509-3p may function as a tumor suppressor. The expression level of miR-509-3p is lower in tumor than in the adjacent normal tissues and ectopic expression of miR-509-3p inhibits renal cell growth and migration. The fluorescinated hsa-miR-509-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-517a-3p

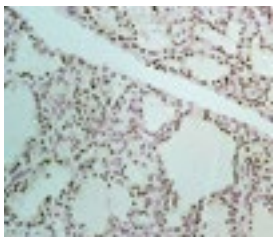


Hsa-miR-517a-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM517A-3P-100 (ASR*)
Specificity:	miR-517a-3p
Recommended Positive Control:	TS-HM517A-3P

miR-517a-3p was differentially expressed in tumor 95D and 95C cell lines that have different metastatic potential. Manipulation of miR-517a-3p expression changed tumor cell proliferation, migration and invasion capacity. MiR-517a-3p directly regulated FOXJ3 expression by binding to FOXJ3 promoter. The fluorescinated hsa-miR-517a-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-510

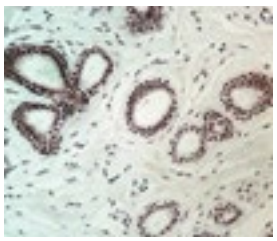


Hsa-miR-510 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM510-100 (ASR*)
Specificity:	miR-510
Recommended Positive Control:	TS-HM510

miR-510, is elevated in tumor samples while absent in the matched non-tumor tissue samples. The fluorescinated hsa-miR-510 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-520C

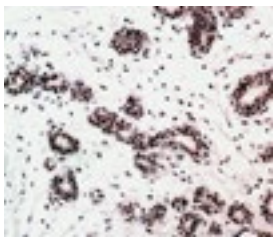


Hsa-miR-520c detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM520C-100 (ASR*)
Specificity:	miR-520c
Recommended Positive Control:	TS-HM520C

miR-520c is an important miRNA and has been characterized as oncogenes. In tumor cells, miR-520c stimulated tumor cell migration and invasion by suppressing the expression of CD44. The fluorescinated hsa-miR-520c probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-511

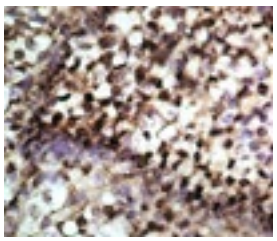


Hsa-miR-511 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM511-100 (ASR*)
Specificity:	miR-511
Recommended Positive Control:	TS-HM511

3′-UTRs of TLR4 I and TLR4 II were miR-511 target sites and that miR-511 knockdown enhanced TLR4 protein levels in differentiating dendritic cells. Downregulation of miR-511 expression was found in ovarian tumor tissues. The fluorescinated hsa-miR-511 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-532-5p



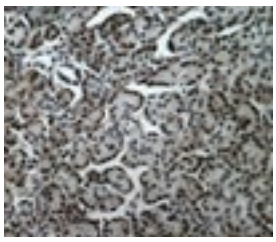
Hsa-miR-532-5p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM532-5P-100 (ASR*)
Specificity:	miR-532-5p
Recommended Positive Control:	TS-HM532-5P

miR-532-5p was differentially expressed in tumor 95D and 95C cell lines that have different metastatic potential. Manipulation of miR-532-5p expression changed tumor cell proliferation, migration and invasion capacity. MiR-532-5p directly regulated FOXJ3 expression by binding to FOXJ3 promoter. The fluorescinated hsa-miR-532-5p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-541

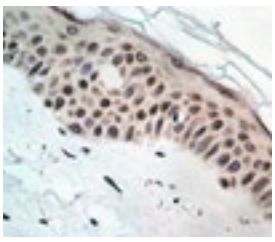


Hsa-miR-541 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM541-100 (ASR*)
Specificity:	miR-541
Recommended Positive Control:	TS-HM541

miR-541 directly regulates HER2 expression in tumor. The fluorescinated hsa-miR-541 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-573

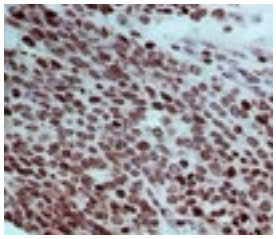


Hsa-miR-573 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM573-100 (ASR*)
Specificity:	miR-573
Recommended Positive Control:	TS-HM573

miR-573 has been reported to act as a tumor suppressor gene. The fluorescinated hsa-miR-573 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-544

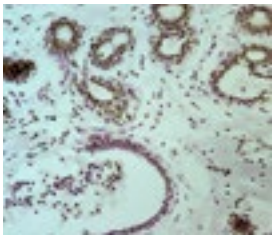


Hsa-miR-544 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM544-100 (ASR*)
Specificity:	miR-544
Recommended Positive Control:	TS-HM544

miR-544 exhibited a progression-associated downregulation in tumors. The fluorescinated hsa-miR-544 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-574-3p

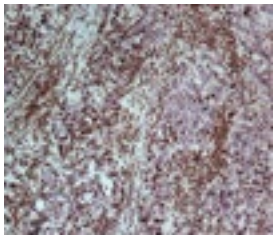


Hsa-miR-574-3p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM574-3P-100 (ASR*)
Specificity:	miR-574-3p
Recommended Positive Control:	TS-HM574-3p

miR-574-3p was downregulated in clinical tumor tissues, and knockdown of endogenous miR-574-3p abrogated the tamoxifen-mediated growth suppression of MCF-7 cells. The fluorescinated hsa-miR-574-3p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-545-5p

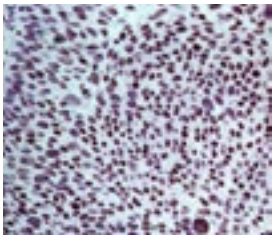


Hsa-miR-545-5p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM545-5p-100 (ASR*)
Specificity:	miR-545-5p
Recommended Positive Control:	TS-HM545-5P

Low miR-545 levels in tumors promote tumor cells growth, and are associated with reduced survival in patients. miR-545 inhibits the proliferation of tumor cells both in vitro and in vivo. The fluorescinated hsa-miR-545-5p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-590



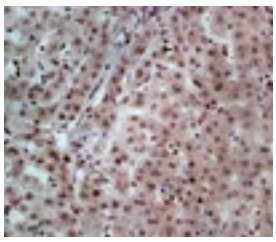
Hsa-miR-590 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM590-100 (ASR*)
Specificity:	miR-590
Recommended Positive Control:	TS-HM590

Downregulation of miR-590 by nicotine has been found to play a key part in the generation of atrial fibrosis by atrial structural remodeling. Expression of miR-590 was downregulated in a number of tumor cell lines. The down-regulation of miR-590-5P may result in the dysregulation of its target genes. The fluorescinated hsa-miR-590 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-610

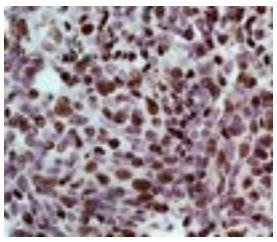


Hsa-miR-610 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM610-100(ASR*)
Specificity:	miR-610
Recommended Positive Control:	TS-HM610

miR-610 which were downregulated in tumor and may be exploited for therapeutic intervention to inhibit tumor progression and metastasis. miR-610 suppresses tumor cell proliferation. The fluorescinated hsa-miR-610 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-622

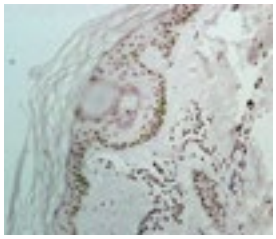


Hsa-miR-622 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM622-100 (ASR*)
Specificity:	miR-622
Recommended Positive Control:	TS-HM622

Expression of miR-622 is downregulated in tumors. Ectopic expression of miR-622 promotes invasion, tumorigenesis and metastasis of tumor cells both in vitro and in vivo. The fluorescinated hsa-miR-622 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-614

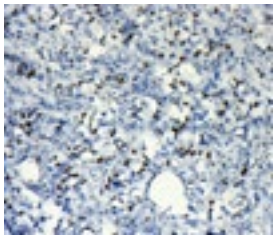


Hsa-miR-614 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM614-100 (ASR*)
Specificity:	miR-614
Recommended Positive Control:	TS-HM614

miR-614 inhibited tumor cells invasion and proliferation. The fluorescinated hsa-miR-614 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization

Hsa-miR-625

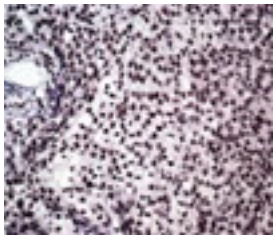


Hsa-miR-625 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM625-100 (ASR*)
Specificity:	miR-625
Recommended Positive Control:	TS-HM625

miR-625 has been shown to be downregulated in tumors. miR-625 is responsible for the regulation of metastasis in tumor cells, and therefore downregulation of miR-625 results in increased metastasis. The fluorescinated hsa-miR-625 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-615

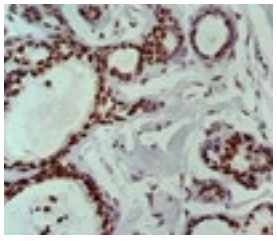


Hsa-miR-615 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM615-100 (ASR*)
Specificity:	miR-615
Recommended Positive Control:	TS-HM615

Expression of microRNA miR-615 is reported in various tumors. The ectopic expression of miR-615 reduced the cell growth and migration. Expression of miR-615 is epigenetically activated by DNA methylation in tumor cells. The fluorescinated hsa-miR-615 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-627



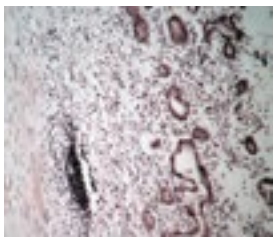
Hsa-miR-627 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM627-100 (ASR*)
Specificity:	miR-627
Recommended Positive Control:	TS-HM627

miR-627 is a major epigenetic regulator in vitamin D induced growth inhibition of tumorous cells upon stimulation by calcitriol. miR-627 acts on target gene JMJD1A (jumonji domain containing 1A), the gene encoding a histone demethylase which is upregulated under hypoxia and promotes tumor growth in tumor cells. Overexpression of miR-627 decreased JMJD1A and suppressed the expression of growth-promoting and differentiating genes, GDF15. The fluorescinated hsa-miR-627 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-628

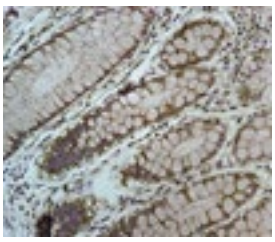


Hsa-miR-628 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM628-100 (ASR*)
Specificity:	miR-628
Recommended Positive Control:	TS-HM628

miR-628 was significantly downregulated in tumors when compared with normal ones. The fluorescinated hsa-miR-628 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-638

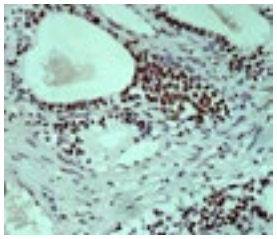


Hsa-miR-638 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM638-100 (ASR*)
Specificity:	miR-638
Recommended Positive Control:	TS-HM638

miR-638 has been reported to be downregulated in several types of tumor, and may therefore function as a tumor suppressor gene. The fluorescinated hsa-miR-638 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-629

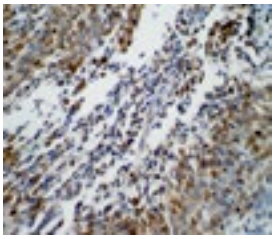


Hsa-miR-629 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM629-100 (ASR*)
Specificity:	miR-629
Recommended Positive Control:	TS-HM629

miR-629 is upregulated in many tumor tissues. miR-629 activates IL-6–JAK–STAT3 signaling in tumor cells, which in turn upregulates miR-629 expression. The fluorescinated hsa-miR-629 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-641

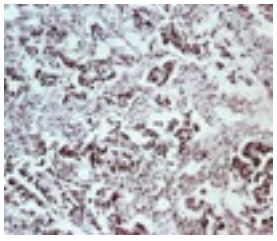


Hsa-miR-641 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM641-100 (ASR*)
Specificity:	miR-641
Recommended Positive Control:	TS-HM641

miR-641 is an uncharacterized microRNA located at intron-1 of the AKT2 gene and is reported to co-regulate and cooperate with AKT. The fluorescinated hsa-miR-641 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-630

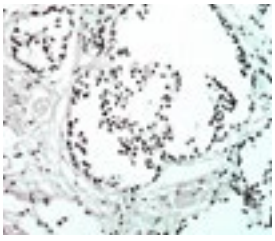


Hsa-miR-630 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM630-100 (ASR*)
Specificity:	miR-630
Recommended Positive Control:	TS-HM630

miR-630 has recently been identified to be implicated in many critical processes in human malignancies. miR-630 expression was significantly increased in tumor specimens compared with that in adjacent normal specimens. The fluorescinated hsa-miR-630 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-642a-5p



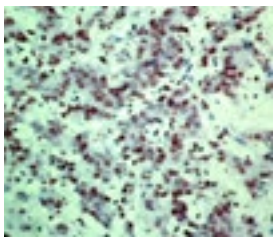
Hsa-miR-642a-5p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM642A-5P-100 (ASR*)
Specificity:	miR-642a-5p
Recommended Positive Control:	TS-HM642A-5P

miR-642a-5p targets Toll-like Receptor 4 in monocytes. The fluorescinated hsa-miR-642a-5p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-648

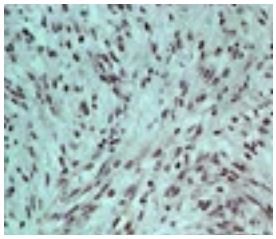


Hsa-miR-648 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM648-100 (ASR*)
Specificity:	miR-648
Recommended Positive Control:	TS-HM648

The miR-648 gene is present in the first intron of MICAL3, encoding a member of the microtubule associated monooxygenase, calponin, and LIM domain-containing (MICAL) family of flavoprotein monooxygenases, which participate in axon guidance, actin remodeling, and redox activity in promoting vesicle-docking complexes in the process of exocytosis. The fluorescinated hsa-miR-648 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-650

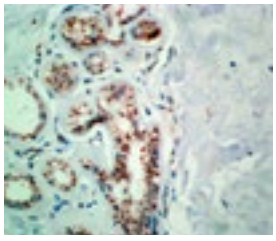


Hsa-miR-650 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HHM0650-100 (ASR*)
Specificity:	miR-650
Recommended Positive Control:	TS-HM650

miR-650 is involved in lymphatic and distant metastasis in human tumors. The ectopic expression of miR-650 promotes tumorigenesis and proliferation of tumor cells. The fluorescinated hsa-miR-650 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-663a

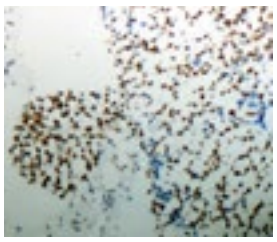


Hsa-miR-663a detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM663A-100 (ASR*)
Specificity:	miR-663a
Recommended Positive Control:	TS-HM663A

miR-663 may be a potential tumor suppressor. The fluorescinated hsa-miR-663a probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-708

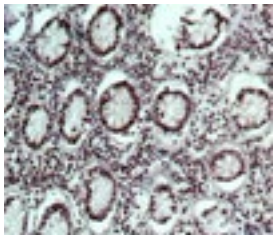


Hsa-miR-708 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM708-100 (ASR*)
Specificity:	miR-708
Recommended Positive Control:	TS-HM708

miR-708 is located on chromosome 11q14.1 and is endcoded in intron 1 of the ODZ4 gene. It is highly expressed in the brain and eyes. High miR-708 expression levels are observed in tumors due to their oncogenic role in tumor growth and progression. miR-708 overexpression results in increased cell proliferation, migration, and invasion. The fluorescinated hsa-miR-708 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-718

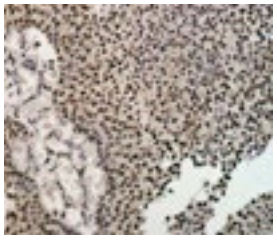


Hsa-miR-718 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM718-100 (ASR*)
Specificity:	miR-718
Recommended Positive Control:	TS-HM718

Decreased expression of miR-718 was associated with tumor aggressiveness. The fluorescinated hsa-miR-718 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-765



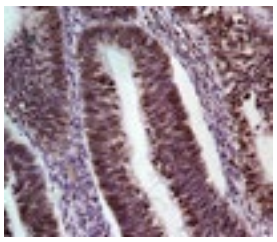
Hsa-miR-765 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM765-100 (ASR*)
Specificity:	miR-765
Recommended Positive Control:	TS-HM765

miR-765 is a fulvestrant-induced and ERβ-associated miRNA, and it targets an oncogenic protein HMGA1. The fluorescinated hsa-miR-765 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-802

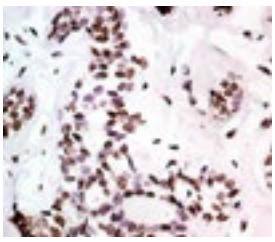


Hsa-miR-802 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM802-100 (ASR*)
Specificity:	miR-802
Recommended Positive Control:	TS-HM802

Enriched expression of miR-802 promoted cell proliferation in tumor cells by negatively targeting cell cycle inhibitor p27 protein as against the normal tissues. The fluorescinated hsa-miR-802 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-944

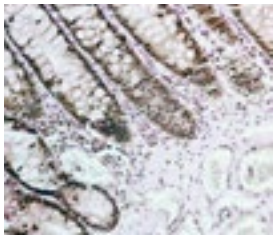


Hsa-miR-944 detected in FFPE tissue stained with DA

Ready-to-use (Manual):	HM944-100 (ASR*)
Specificity:	miR-944
Recommended Positive Control:	TS-HM944

miR-944 expression has been detected in several tumor types, and is more abundant in tumor samples than in their normal counterparts. High expression of miR-944 is also associated with tumor recurrence. The fluorescinated hsa-miR-944 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-874

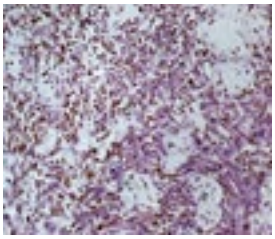


Hsa-miR-874 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM874-100 (ASR*)
Specificity:	miR-874
Recommended Positive Control:	TS-HM874

miR-874 has been identified as a tumor-suppressor and is reportedly down-regulated in some types of tumor. The fluorescinated hsa-miR-874 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization

Hsa-miR-1181

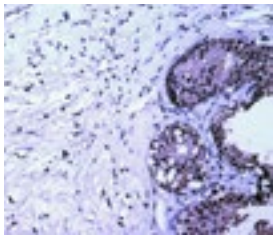


Hsa-miR-1181 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM1181-100 (ASR*)
Specificity:	miR-1181
Recommended Positive Control:	TS-HM1181

Recently, it has been shown that overexpression of miR-1181 inhibited, whereas down-regulation of miR-1181 promoted, tumor stem cells (CSCs)-like phenotypes in vitro and tumorigenicity in vivo. This indicated that downregulated or low expression of miR-1181 is associated with poor overall survival and disease-free survival of the tumor patients. The fluorescinated hsa-miR-1181 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-940

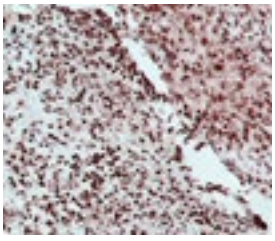


Hsa-miR-940 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM940-100 (ASR*)
Specificity:	miR-940
Recommended Positive Control:	TS-HM940

The dysregulation of miR-940 has been found in various tumors. miR-940 was highly expressed in normal tissues compared with tumors, and miR-940 inhibited migratory and invasive potential of tumor cells. miR-940 promotes tumor cell invasion and metastasis by downregulating ZNF24. The fluorescinated hsa-miR-940 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-1247



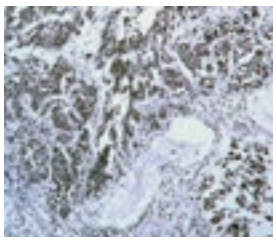
Hsa-miR-1247 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM1247-100 (ASR*)
Specificity:	miR-1247
Recommended Positive Control:	TS-HM1247

Aberrant expression of miR-1247 has been found in several tumors and is predicted to play an important role in the pathological processes of tumor by miRNA-regulated network analysis. The fluorescinated hsa-miR-1247 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-1258

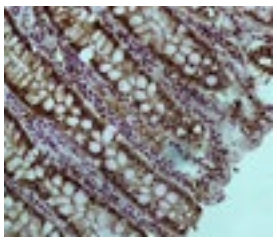


Hsa-miR-1258 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM1258-100 (ASR*)
Specificity:	miR-1258
Recommended Positive Control:	TS-HM1258

miR-1258 may play an important role in tumor development and progression by regulating the expression of HPSE. The fluorescinated hsa-miR-1258 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-1297

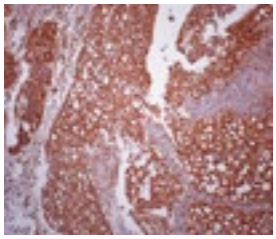


Hsa-miR-1297 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM1297-100 (ASR*)
Specificity:	miR-1297
Recommended Positive Control:	TS-HM1297

It has been reported that miR-1297 acts as a tumor suppressor by suppressing in vitro and in vivo expression of TRIB2/PTEN and further increasing C/EBPα expression thereby inhibits cell proliferation, migration, and tumorigenesis. miR-1297 inhibits the Cox-2/PGE-2 signaling pathway causing higher levels of miR-1297 in normal tissues than corresponding tumor tissues. The fluorescinated hsa-miR-1297 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-1285

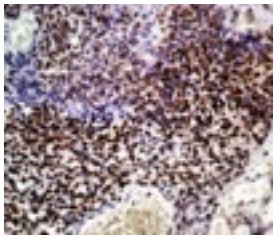


Hsa-miR-1285 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM1285-100 (ASR*)
Specificity:	miR-1285
Recommended Positive Control:	TS-HM1285

Genome-wide gene expression analysis data show that transglutaminase 2 (TGM2) is directly regulated by miR-1285. The fluorescinated hsa-miR-1285 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-1826

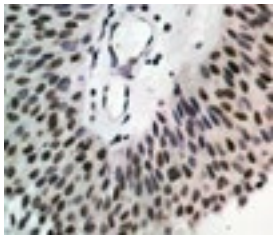


Hsa-miR-1826 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM1826-100 (ASR*)
Specificity:	miR-1826
Recommended Positive Control:	TS-HM1826

miR-1826 expression was significantly lower in tumor tissues and lower expression was significantly associated with overall shorter survival. miR-1826 also inhibited tumor cell proliferation, invasion and migration. miR-1826 plays an important role as a tumor suppressor by down-regulating beta-catenin and MEK1 in VHL inactivated tumors. The fluorescinated hsa-miR-1826 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-1296

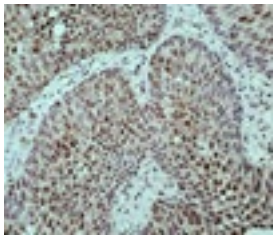


Hsa-miR-1296 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM1296-100 (ASR*)
Specificity:	miR-1296
Recommended Positive Control:	TS-HM1296

miR-1296 is downregulated in tumor and that MCM2 is one of its targets. The fluorescinated hsa-miR-1296 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

Hsa-miR-4723



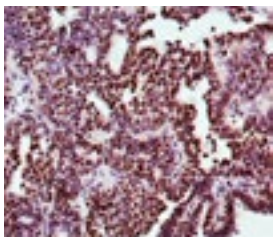
Hsa-miR-4723-5p detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM4723-5P-100 (ASR*)
Specificity:	miR-4723-5p
Recommended Positive Control:	TS-HM4723

miR-4723 expression is attenuated in tumor and is significantly correlated with poor survival outcome and tumor progression. Functional studies using tumor cell lines showed that reconstitution of miR-4723 expression led to significant decreases in cell growth, invasion and migration. The fluorescinated hsa-miR-4723-5p probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hsa-miR-9500

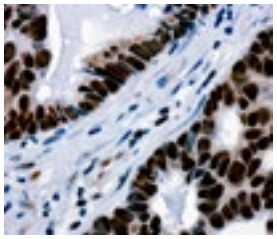


Hsa-miR-9500 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	HM9500-100 (ASR*)
Specificity:	miR-9500
Recommended Positive Control:	TS-HM9500

The expression levels of miR-9500 were reduced in tumor cells and tumor tissues compared with normal tissues. Overexpression of miR-9500 impeded cell migration in human tumor cells. The fluorescinated hsa-miR-9500 probe is designed to localize this miRNA in FFPE tissue by in situ hybridization.

U6

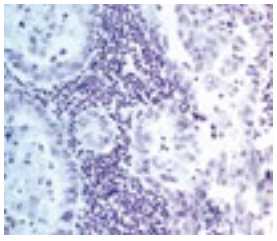


U6 detected in FFPE tissue stained with DAB

Ready-to-use (Manual):	PR031-100 (ASR*)
Specificity:	U6
Recommended Positive Control:	TS-PR031

The U6 probe identifies a small nuclear RNA U6 sequence in human FFPE and freshly prepared frozen tissues. The probe sequence does not share homology with miRNA sequences available in the miRBase database.

Scramble



Nagative staining of scramble probe in FFPE tissu

Ready-to-use (Manual):	PR032-100 (ASR*)
Specificity:	Scramble
Recommended Positive Control:	TS-PR032

The scramble probe does not identify any miRNA sequences in human FFPE and freshly prepared frozen tissues. The probe sequence does not share homology with miRNA sequences available in the miRBase database.

*Analyte Specific Reagent. Analytical and performance characteristics are not established.

Hybridization Detection System

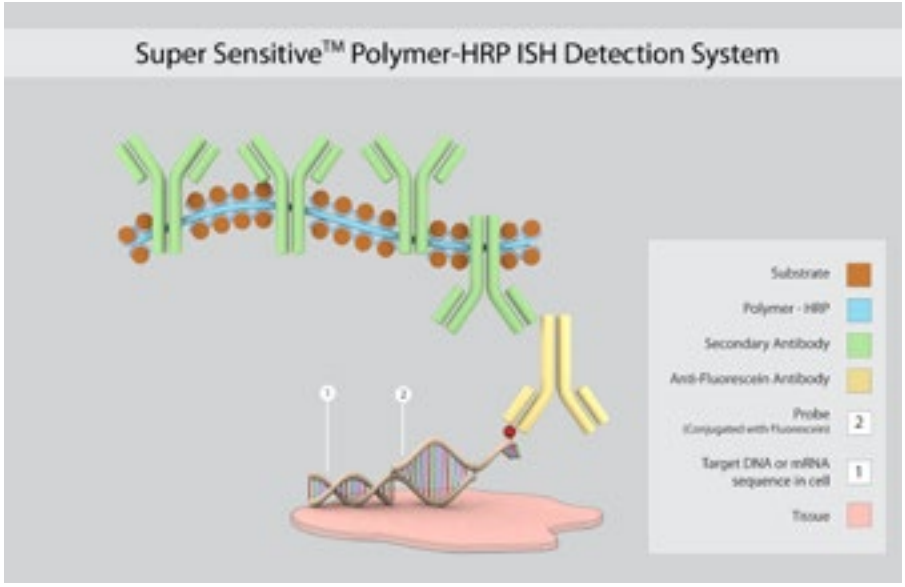
in situ Hybridization (ISH) is a powerful technique for detecting and localizing specific nucleic acid sequences within cells or tissues. This is achieved by the hybridization of a labeled probe to the specific RNA/DNA sequence within the cell and subsequent detection of the bound probe. ISH technique enables the semi-quantification of mRNA expression and helps determine the temporal and spatial patterns of gene expression in cells, tissue and whole animals. ISH technique can also be used for detection of intracellular pathogens with a very high degree of sensitivity.

Super Sensitive™ (Manual) & XISH (Xmatrx) One-Step Polymer-HRP Detection System

This is a novel detection system using a non-biotin polymeric technology that makes use of Poly-HRP reagent. As the system is not based on the Biotin-Avidin System, problems associated with endogenous biotin are completely eliminated. The technology allows excellent cell penetration ability for intense staining, compared with other polymer HRPs.

Features & Benefits:

- Clean Stain without endogenous biotin background
- High signal to noise ratio for intense stain
- Universal system for all fluorescein labeled probes
- Available in RFID tagged (XISH kit) for Automation or in dropper bottles (Super Sensitive kit) for manual staining



ISH Detection Systems Composition

SKU	Size	α Fluor.	Polymer HRP	DAB buffer	DAB Chromo.	Peroxide block	Power block	Hematox	Prot. K	Hybrid. buffer	NAR-1	Washes A,B,E,F
DF400-25KE	25 test	2 ml	2 ml	5 ml	2 ml	3 ml	3 ml	3 ml	3 ml	6 ml	2 ml	10 ml
DF400-50KE	50 test	3 ml	3 ml	10 ml	2 ml	5 ml	5 ml	5 ml	5 ml	6 ml	3 ml	20 ml
DF400-YADE Xmatrx-Elite	100 test	5 ml	5 ml	4x5 ml + 5 RFID vials	7 ml	10 ml	10 ml	10ml	5 ml	NA	5 ml	2x10 ml

Substrates and Chromogens

BioGenex offers complete Substrate Packs for immunohistochemical staining with alkaline phosphatase and peroxidase labels. The kits are designed to reduce substrate preparation time and minimize exposure to chemical hazards. The chart below summarizes the substrates offered, indicating enzyme and standard mounting media compatibility.

Features & Benefits:

- High Resolution AEC and Liquid DAB
- Rapid Development Time
- Ready-to-use Solutions
- Long-Term Stability

The chart below summarizes the compatibility of mounting medium, chromogens and counterstains

Chromogen	Stain Color	Enzyme used	Solubility in Alcohol/Xylene	Compatible with Hematoxylin	Compatible Mounting Media
AEC	Brick Red	HRP	Yes	Yes	Aqueous or Super Mount
DAB	Brown	HRP	No	Yes	Aqueous, Super Mount or Xmount
Elegance Red	Red	AP	No	Yes	Aqueous, Super Mount or Xmount
Fast Red	Red	AP	Yes	Yes	Aqueous or Super Mount
New Fuchsin	Red	AP	Yes	Yes	Aqueous or Super Mount

Automation

Automated Platforms for Molecular Pathology

BioGenex pioneers in the design, development and manufacturing of advanced systems for automation of cell- and tissue-based staining. To accommodate diverse laboratory needs we offer an array of clinical and research automation platforms that meet globally accepted quality standards (ISO13485:2003 & ISO9001:2008), are approved by the FDA and are especially designed to improve laboratory workflow, productivity and reproducibility.

Xmatrx® systems (NANO, MINI, INFINITY, ELITE and ULTRA) are the direct result of our platform technology innovation. They offer a variety of automation, throughput and assay applications. Our key technology differentiators include the eXACT temperature control and reaction micro-chamber- improving IHC results and enabling Nucleic Acid-based Diagnostics (NADx).

1. Clinical platforms, support LIMS connectivity for data tracking and management, contain RFID and Barcode enabled technologies and include over 400+ optimized protocols with ready to use reagents in RFID tagged (Xmatrx) vials. These systems are FDA approved for In Vitro Diagnostic (IVD) applications including: immuno-histochemistry (IHC), *in situ* hybridization (ISH), codetection and special staining.

Clinical Platforms / Application	IHC	ISH/CISH	Double Staining	Special Stains
Xmatrx® ELITE	√	√	√	√
Xmatrx® ULTRA*	√	√	√	√

2. Research platforms, offer infinity possibilities for translational and clinical research. They include flexible open system software for easily creating, editing and saving protocols and enable automation of any slide-based assay including immuno-histochemistry (IHC), *in situ* hybridization (ISH), fluorescence in situ hybridization (FISH), immuno-fluorescence (IF), co-detection and multiplex applications (double and triple stains; IHC/ISH), *in situ* PCR, micro-RNA and special staining.

Research Platforms / Application	IHC	ISH/CISH	Double Staining	Special Stains	FISH	IF	miRNA ISH	Multiplexing (ISH + IHC)	*In Situ* PCR
Xmatrx® Infinity	√	√	√	√	√	√	√	√	√

3. Nucleic Acid Diagnostics (NAD) dedicated Platforms: Xmatrx Nano and Mini, are the most economical and flexible automation platforms for FISH, ISH and In-Situ Hybridization. These systems are small in size, contain 10 independent eXACT™ thermal cyclers that can run 10 different protocols simultaneously. These instruments contain on-board wash and waste drainage systems, audio-visual alerts and a user-friendly software with ability to add or delete cycles, store protocols for future use and perform, deparaffinization, antigen retrieval, hybridization, washing and up to 45 PCR cycles.

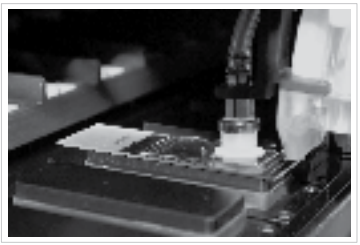
NAD Platforms / Application	ISH/CISH	FISH	miRNAISH	*In Situ* PCR
Xmatrx® NANO	√	√	√	√
Xmatrx® MINI	NA	NA	NA	NA

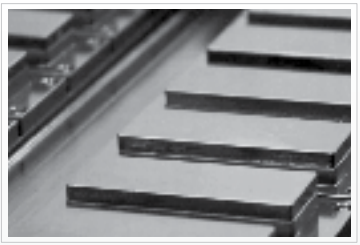
4. Other Systems: The Ez-Retriever system is designed to work seamlessly with i6000, providing Eco-friendly De-waxing, Rehydration and Antigen Retrieval in one step, for high-throughput applications. The system provides uniform heating and optimized factory protocols, assuring clean, intense and reproducible staining results. The i500 Plus is a LIMS enabled Barcode label printer for integrated digitized data tracking.

Other Systems	Description
EZ-Retriever	Pre-treatment and Antigen Retrieval System Using a Programmable Microwave Oven with Build-In Temperature Control
i500 Plus	LIMS Enabled Barcode Label Printer Compatible with Xmatrx and i6000

Xmatrx® ELITE

Microtome to Microscope





Three Simple Steps

Load → Click → View

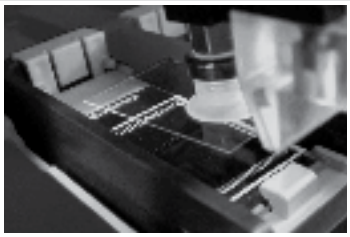
Fully Automated System from Microtome to Microscope… For the Molecular Pathology Laboratory of Today, Tomorrow and Beyond

- All-in-One All-at-Once – IHC, ISH, SS, Multiplexing and Co-detection
- FISH*
- Standardized process from baking through final glass cover slip in three simple steps: Load – Click – View slides
- Automates technologies of today…IHC, ISH, SS, FISH*, Multiplexing and Co-detection of Nucleic Acid and Protein Biomarkers
- Designed to automate the technologies of tomorrow and beyond…Gene Expression Profiling, *in situ* PCR, miRNA… and more
- Meets global regulatory requirements and safety standards

* optional software

Xmatrx® ULTRA

Next Generation Fully Automated Staining System

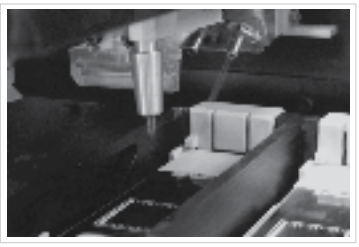


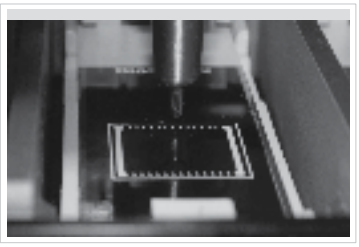
All-in-One All-at-Once - IHC, ISH, SS, Multiplex and Co-detection

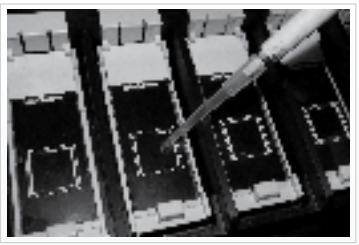
- Next generation fully-automated slide staining system
- BioGenex's proprietary coverslip mechanism
- Easy waste disposal system
- Intelligent SMS system
- Auto-DAB enabled – On-board automated mixing of chromogen and buffer
- High throughput - 100 slides per day, 60 slides in eight-hour shift, and 40 slides in delayed overnight run

Xmatrx® NANO

eFISHiency System for FISH Automation





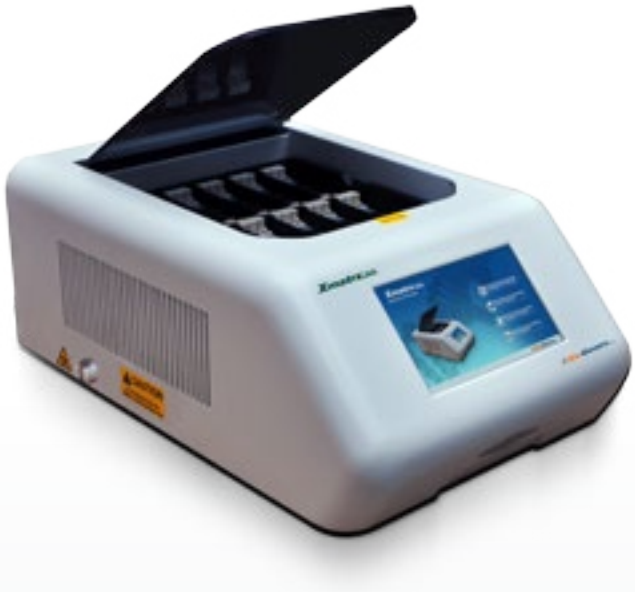


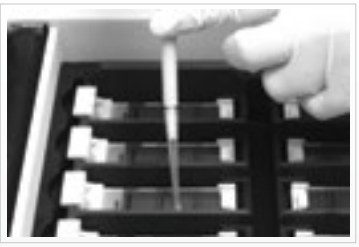
All-in-One - FISH, *in situ* PCR and ISH

- Add micro-reagents manually to save cost
- Intelligent SMS information for alerts
- Economical and affordable
- Touch Panel PC as user interface
- Flexible Open System Software - create, edit and save protocols for future use
- Run 10 different protocols at the same time

Xmatrx® MINI

eFISHiency Workstation



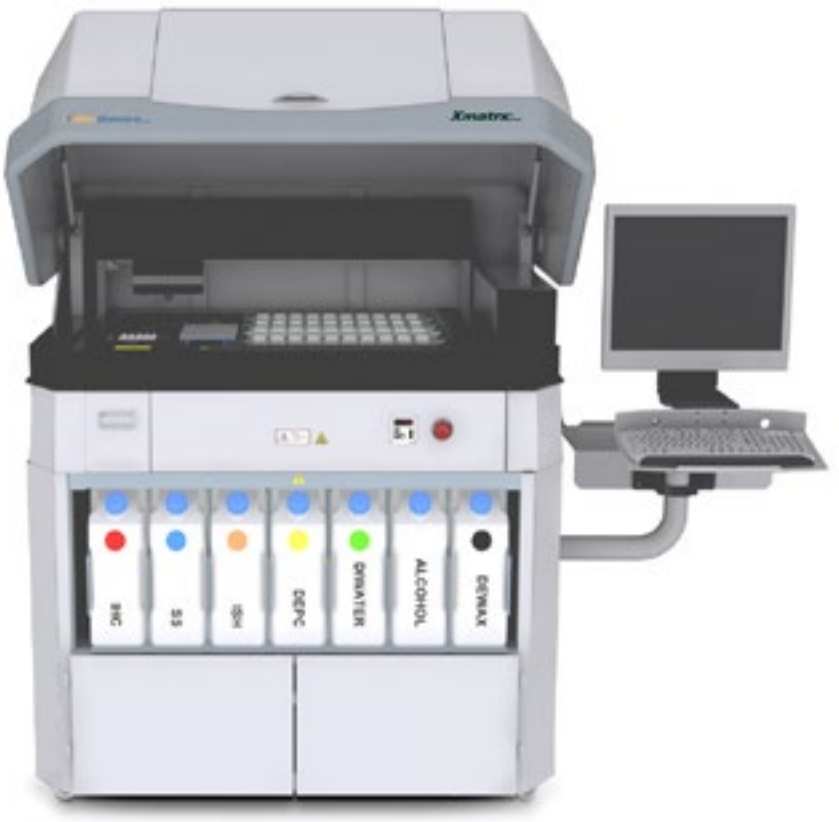


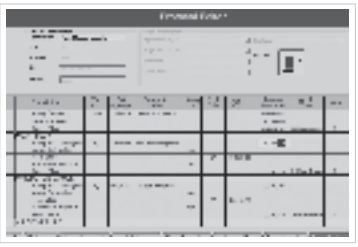
All-in-One - FISH, *in situ* PCR and ISH

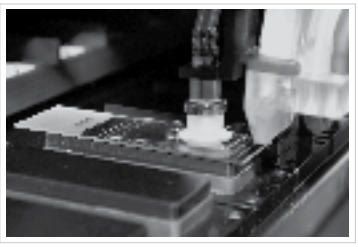
- High performance *in situ* PCR, ISH and FISH
- Hybridizer with eXACT™ temperatures
- 10 independent thermal cyclers
- Built-in touch screen display for easy operations
- Facility of on-board wash with effective waste drainage system
- Audio-visual alerts and on screen color-coded error alerts
- User-friendly software with ability to add/delete cycles, store protocols for future use and perform up to 45 PCR cycles

Xmatrx® Infinity

Infinite Possibilities...
...For Translational and Clinical Research







All-in-One - IHC, IF, ISH, CISH, FISH, *in situ* PCR and miRNA...

- Intelligent and flexible system offering infinite possibilities – IHC, ISH, FISH, CISH, IF, Multiplexing and Co-detection
- Simultaneous optimization of up to 40 parameters in single run
- Reaction micro-chamber reduces micro-reagent consumption by up to 90%
- 40 independent thermocyclable (PCR) workstations
- Intuitive software designed for ease of use and flexibility
- Reports for inventory management and regulatory compliance
- Multiple slide processing options – Random, Continuous and STAT

Tissue Pre-treatment & Nucleic Acid Retrieval

De-Waxing Solutions

One-Step DeWaxing and Rehydration Reagent

BioGenex deparaffinization solutions are “one-step” products that simultaneously enables the removal of paraffin and allows rehydration of the tissue with a single reagent. In the past, formalin-fixed, paraffin-embedded tissue sections were traditionally deparaffinized with highly toxic, noxious chemicals (i.e. xylene, equivalents). BioGenex, a pioneer in the Immunohistochemistry technology, offers xylene-free products that removes the paraffin from mounted tissue slides easily and rapidly.

1. EZ-DeWaxSol. – For all BioGenex manual methods.

2. X-Dewax Sol. – Optimized for Xmatrx automation.

Features & Benefits

- Effectively removes paraffin and allow rehydration of the tissue in one step.
- Reduces deparaffinization time from 45 minutes to 10 minutes.
- Eliminates use of toxic solvents (Xylene) and minimizes hazardous waste.
- Ready to use (RTU) or 2x solutions (to be diluted 1:1 with ethanol) are available.

Product	1000 ml (RTU)	500 ml (2x)	1 Gallon ml (2x)
X-DeWax (Xmatrx®)	HX015-XAK	HX016-XAK	HX016-XEK
EZ-DeWax (Manual/i6000™)	HK585-5k	HK584-5k	NA

Nucleic Acid Retrieval Method

BioGenex is the inventor of Nucleic Acid Retrieval enabling technology. This technology is an effective way of unmasking DNA in formalin-fixed, paraffin-embedded tissue sections using microwave heating. The Nucleic Acid Retrieval technique breaks the formalin induced cross-linking bonds between DNA and proteins, as well as protein-protein cross-linking thereby allowing better penetration of probes and accessibility of DNA for binding. Nucleic Acid Retrieval (NAR-1) is recommended instead of Proteinase K when DNA targeting probes are used.

Advantages of the method:

- Reduces time for probe incubation
- Consistent and reliable staining quality
- Eliminates false-negative staining results
- Easy to use - Can be used in both microwave or Xmatrx Automation protocols
- Non-hazardous, non-flammable and odorless – Safe and Eco-friendly

Product	Method	Features & Recommended Use
NAR-1	Microwave, 95-100°c	Excellent for DNA targeting probes

Enzymes for Tissue Digestion

Some tissues require the use of enzymatic pre-treatment before staining to achieve standardized results depending on the antibodies and their different incubation and pre-treatment requirements. Each kit contains three or four vials of lyophilized enzyme powder and 15 ml of reconstitution buffer, enabling you to make fresh enzyme solutions as needed.

1. Proteinase K in a ready to use (RTU), RNase-free solution and is recommended for use with RNA targeting probes.
2. The Trypsin and Pepsin kits contain well-established enzymes suitable for routine pre-treatment at 37 °C. Pepsin is recommended as pretreatment for FISH applications.
3. Protease XXIV kits contain a universal digestive agent that allows for fast and effective pre-treatment at room temperature.

*i*500 Plus™

LIS Enabled Barcode Label Printer

Integrated Digitized Data Tracking System

- For printing chemical resistant barcode labels
- Compatible with Xmatrx® and *i*6000™
- User-friendly software
- Synchronization of protocol information
- Efficient system
    - Eliminates human error
    - Helps reduce operating cost
    - Fast turn-around

EZ-Retriever® System

Pre-treatment and Antigen Retrieval System

- DeWax, re-hydration and antigen retrieval in one step
- Optimized factory protocols
- User-defined protocols
- High throughput - 96 slides in 20 minutes
- Microwavable containers
- Programmable time and temperature controls
- Built-in probe measures solution temperature in real time
- Time saving and uniform heating
- Eco-friendly solutions

Ancillary Reagents

Buffers

Buffers and diluents are available for Immunohistochemistry,in situ Hybridization Special Stains and most other applications.

- General buffers, such as PBS(PH 7.6) and TBS(PH 7.6, 0.1M) can be used for washing/rinsing of slides.
- Super SensitiveTMWash Buffer is phosphate buffered saline (PH 7.4) with surfactant and isused to ensure optimal staining with even spreading of antibodies and other reagents to avoid inconsistent results.

Buffers - Manual & Automation

Product Name	500 ml (20x)
Phosphate Buffered saline	HK091-9K
Super Sensitive Wash Buffer	HK583-5K
Tris Buffer (Wash Buffer) 3/Pack (dries powder to make 3L)	HK098-5K

Counterstains and Mounting Media

BioGenex offers the following counterstains for use in Immunohistochemistry,in situ Hybridization and other applications with either manual or automated staining systems.

- Mayer's hematoxylinis a blue stain that does not contain alcohol and therefore is compatible with both alcohol soluble non-permanent chromogens (AEC, Fast Red& New Fuchsin) and alcohol-insoluble chromogens (DAB & Elegance Red). It is alcohol and xylene insoluble and therefore compatible with most clearing agents and mounting media.

Product Name	1 ml (RTU)	6 ml (RTU)	250 ml (RTU)
Hematoxylin, Mayer's (IHC, ISH)	NA	HK100-5K	HK100-9K

Mounting of all stained biological specimens is an essential step before their microscopic evaluation. Mounting also enables the slides to be archived for long periods of time. The mounting medium may be used to attach a coverslip or may itself serve as a coverslip substitute. The choice of mounting medium depends on whether long-term or short-term preservation is desired, and whether the mounting procedure is chemically compatible with the chromogen and the counterstain.

- SuperMount®Permanent Mounting Medium is a polymer based aqueous mounting media that does not require the use of a coverslip. This innovative, patented mounting medium (BioGenex's U.S. Patent No. 5,492,837) is designed to preserve biological specimens for long-term storage. SuperMount® medium is compatible with most aqueous and organic-soluble dyes and chromogens including AEC, DAB, Elegance Red, Fast Red, New Fuchsin, BCIP/NBT, Rhodamine, Fluorescein, Texas Red, Phycoerythrin, Phycocyanin, and Fat Stain (Oil Red O). The refractive index of SuperMount® yields greater transparency and clarity of specimens to be examined under the microscope. SuperMount® can be used for the mounting of all biological specimens, including stained tissue sections, Cytospin preparations, and blood smears.

- Aqueous Mounting Mediumis glycerol-based mounting medium that require the use of a coverslip. It is intended for short-term specimen storage and is compatible with most chromogens and counterstains.

- XMount™ Mounting Medium is a permanent mounting medium that has been optimized for use with BioGenex™ instrument for all BioGenex detection systems for immunohistochemistry (IHC), In Situ Hybridization (ISH) and special stains. XMount™ is intended for use with alcohol and xylene insoluble chromogens, such as DAB (for peroxidase systems) and Elegance Red (for alkaline phosphatase systems). XMount™ dries clear with an ideal refractive index similar to high quality glass and tissue elements. Mounted slides can be viewed with high magnification oil immersion lenses. Also, when mounting preparations stained with the BCIP/NBT substrate, crystal formation that may occur when using other media is minimized.

Mounting Medium

Product Name	15 ml (RTU)	50 ml (RTU)
Aqueous Mounting Medium - Manual	HK099-5K	NA
SuperMount Permanent Mounting Medium - Manual	HK079-5K	HK079-7K
Xmount Mounting Media (200 tests) – RFID	HX035-YCD	NA
Xmount Mounting Media (200 tests) – Xmatrx Infinity	HX035-10X	NA

Microscope Slides & Coverslips

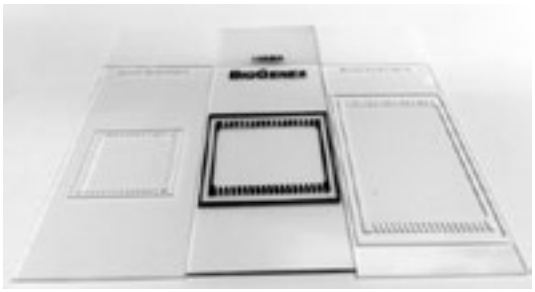
OptiPlus™ Positive-Charged Microscope Slides provide a strong adhesive surface fortissues and cells to prevent tissue displacement during harsh pre-treatments such asenzymatic digestion and the microwave Antigen Retrieval method. These slides are idealfor automated systems. Additionally, each slide has a frosted end for easy labeling.The OptiPlusTMPositive-Charged Barrier Slides have all the advantages of our regular OptiPlusTMslides, but also contain hydrophobic barriers that allow the quantity of reagents per slide to be tailored to the size of the specimen. These slides eliminate reagent waste without the need to use a PAP pen, thereby reducing set-up time in manual assays as well as in automated systems. The permanent hydrophobic barriers are compatible with dewaxing solutions and other reagents. The slides are suitable for use with frozen tissue sections, formalin-fixed paraffin sections, and cytology preparations.

1. i6000 Elite Automated Staining Systems

OptiPlus™ Barrier slides for i6000 come in three different configurations to accommodate different tissue sizes or multiple tissues per slide:

1. A single, full-size test area of 25 x 40 mm
2. A single 2/3-size test area of 25 x 30 mm
3. Three 1/3-size test areas per slide, each measuring 25 x 15 mm

2. Xmatrx Automated Staining Systems



OptiPlus™ Barrier Slides for Xmatrx (U.S. & Foreign Equivalent Patents Pending) contain a double hydrophobic barriers that allows formation of an oil seal to prevent evaporation of microreagents during high temperature steps and prolonged incubations. Four different configurations are available:

1. A single test area of 25 x 40 mm (>80 µl of reagent recommended)
2. A single test area of 25 x 25 mm (>40 µl of reagent recommended)
3. A single test area of 18 x 18 mm (>10 µl of reagent recommended)
4. Two test area per slide, each measuring 18 x 18 mm

Coverslips are optimized for use on Xmatrx staining systems and come is three configurations to accommodate the different barrier slides.

Pipette tips

BioGenex pipette tips are made of high-quality polypropylene and are RNase and heavy metals-free when untampered. Inner surface is extremely smooth and requires minimum wetting. 1 ml pipette tips are optimized for use on BioGenexXmatrx® andi6000™ Staining Systems, while 200 µl tips are optimized for Xmatrx® staining systems.

Consumables kits for Xmatrx®

Item	SKU	Size	Barrier Slides 25 x40 mm	Barrier Slides 25 x40 mm	Coverslips 25 x 40 mm	Coverslips 25 x 40 mm	1 ml Pipette Tips	200 µl Pipette Tips
ISH kit	XT144-YAD	100 test	NA	104	NA	900	384	960

Accessories

1. Nucleaic Acid Retrieval Accessories Kits

The Nucleaic Acid Retrieval Accessory Kit consists of slide holders and slide baths that make it convenient and compatible with any of the several Nucleaic Acid Retrieval solutions. To accommodate microwave heating, the slide baths and slide holders are made of heat-stable thermoplastic polyolefin and hydrocarbon polymers of acetal resins. These accessories may be used in a microwave or a pressure cooker.

Item	SKU	Slide Bath + Lid	Slide Holder
24- Slide Accessory kit	MW001-SU	1	1 (24- slide capacity)
72- Slide Accessory kit	MW001-HB	3	3 (72- slide capacity)

2. NordicWare® Microwave Pressure Cooker

TPlacing the NordicWare®Microwave Pressure Cookerwithin a microwave is an effective method for enhancing staining with the Nucleaic Acid Retrieval technique. The heat produced under enhanced pressure can reduce the build up of gas bubbles on the surface of tissues. This improves the intensity of staining, accompanied by preservation of tissue and cell morphology. This pressure cooker is also optimized for use with various BioGenex Nucleaic Acid Retrieval solutions. BioGenex Catalog number: NW001-PC.

3. PAP Pen for Tissue Staining

The PAP Pen is a useful pen-like tool for immunohistochemical staining methods. It is designed to prevent the waste of valuable reagents by forming a water-repellent barrier around the specimen. This barrier creates the proper surface tension to hold an antibody solution or detection reagents within the target area on the slide. The surface tension provided by the PAP Pen circle ensures that only the amount of antibody solution needed for sufficient reaction will be applied. Since over-flooding of the slide is eliminated, wiping of excess fluid around the specimen can be avoided. The PAP Pen can be used for immunostaining of paraffin sections, frozen sections, and for fluorescent antibody methods. The PAP Pen contains a special formulation, which is water repellent. It can be removed, if desired, with xylene or xylene substitutes after the staining procedure is completed.BioGenex Catalog Number: XT001-PP, sufficient for use on 500-1000 slides.

General Terms and Conditions

1. Order Information

- Credit Terms: BioGenex will review the customer credit application and finalize the terms (Credit Limit and Net Days) based on inputs provided and credit rating.
- Order Confirmation: To avoid shipment duplication, please indicate in bold "**CONFIRMING ORDER - PLEASE DO NOT SHIP"** on your order.

2. Conditions of Sale

- All prices are quoted in U.S. dollars, exclusive of Sales tax (State and County) , as applicable.
- If an order is not taxable, a tax exemption certificate must be provided.
- Products and prices are subject to change without any prior notice.
- Discounts: Please inquire about BioGenex quantity discount policies at 1-800-421-4149.
- Payment: All payments must be made in U.S. dollars. You may choose any mode of payment (Note: Online payment systems are not implemented).

3. Return and Refund Policy

BioGenex reagents are covered by Quality Assurance (QA) policy:

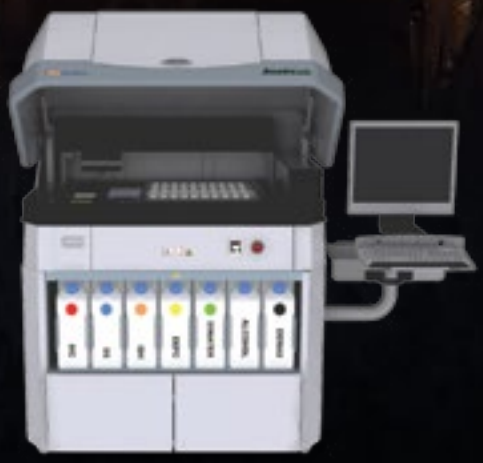
- Returns will only be accepted with BioGenex Return Material Authorization (RMA). Please contact customer service for further assistance.
- BioGenex has a limited liability for a refund or replacement. The same is solely under the discretion of BioGenex management.
- A full refund will be provided when a product cannot perform according to data specifications.
- If client makes an error in ordering a product, a refund may be provided along with a 30% restocking fee.
- Express Delivery: Express delivery options are also available on request at an extra cost.
- BioGenex customer service for assistance:
  Tel: 1-800-421-4149, Monday through Friday 7 AM – 4 PM PST or
  E-mail at: customer.service@biogenex.com

4. Other Terms and Conditions

- BioGenex is committed to quality, innovation, service, and support. We believe that the high degree of quality control performed on all our products will help you with consistent and reproducible results.
- All orders are subject to acceptance by BioGenex and product availability.
- Delivery dates are estimates and BioGenex shall have no liability for any delays.
- There are no expressed, implied or statutory warranties, including without limitation, the implied warranties of merchantability, fitness for a particular purpose and non-infringement of third party rights.
- Freight charges are prepaid and added to the invoice.
- BioGenex shall not be liable for any incidental, indirect, special or consequential damages, even if it is aware of the possibility of such damages. BioGenex's total liability for any order shall not exceed the amount paid by customer under such order.
- These terms and conditions constitute the entire agreement between the parties with respect to the products purchased hereunder.
- Any additional, different or inconsistent terms and conditions in a purchase order form or like forms used by customer to purchase, change, accept or otherwise process the orders are objected to and not binding on BioGenex.
- This agreement between the parties shall be governed by the laws of the State of California without regard to its conflicts of laws.
- Any dispute arising out of or related to this Agreement shall be resolved solely in the U.S. District Court for the Northern District of California or in San Francisco County, and in no other courts, and Customer hereby consents to the jurisdiction of, venue in and service of process from the aforementioned courts.

Accelerating Precision Medicine.
Integrated miRNA *In Situ* System

- Over 200 Probes
- Detection Systems
- Automation



BioGenex

In the U.S., call +1 (800) 421-4149

Outside the U.S., call +91-40-27185500

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