PRODUCT SHEET

Biomeme

LyoRNA™ Master Mix

Last Updated: 10/11/2019

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LyoRNA™ Master Mix

Biomeme LyoRNA™ Master Mix is a lyophilized master mix containing core reaction components for fluorescent probe-based reverse transcription polymerase chain reaction (RT-PCR) analysis of RNA targets.

A proprietary blend of stabilizers and macromolecules, **Biomeme LyoRNA™ Master Mix** includes reaction buffer, magnesium ions, dNTP nucleotides, Taq DNA polymerase and a thermostable MMuLV RNA-dependent DNA polymerase. For a complete RT-PCR reaction mix, the master mix is added to oligonucleotide primers and probe(s) specific to the RNA target(s).

Biomeme LyoRNA™ Master Mix is supplied as a dry reagent to be reconstituted in water. A proprietary freeze-drying process ensures it remains stable at ambient temperatures and does not require refrigeration for transport or storage.

Biomeme LyoRNA™ Master Mix is formulated for 5' nuclease signaling, providing 5 mM magnesium ions in final reaction mix. For additional Mg++, MgCl2 solution (not supplied) can be supplemented for diluent.

Safety Warning: *When working with our products, always wear appropriate personal protective equipment (PPE) (e.g. lab coat, disposable gloves with adequate chemical resistance, mouth/face protection, goggles, etc.) For more information, please review the product's safety data sheet(s) (SDS).*

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CONTENTS	VOLUME
LyoRNA Bulk Vial	Each bulk vial contains enough Master Mix for ~65 20 µL reactions

Technical Characteristics

SPECIFICATIONS	DIMENSIONS
DNA-dependent DNA polymerase	Hotstart Taq polymerase (1 min. activation @ 95°C)
Reverse transcriptase	Thermostable RNase H-recombinant MMuLV (1-2 min. RT step @ 40-55°C)
Nucleotides	Proprietary mix of dNTPs, incl. dUTP
Buffer	Tris pH 8.8 Salts and enhancers for 5' nuclease assays

Mg++	5 mM
Storage	15-30°C
Shelf life	18 months
Dissolution time	<1s

Note: Contains Bovine Serum Albumin of USA origin. Certified BSE free.

Reconstitution Volumes

MASTER MIX CONC. SOUGHT	DILUENT VOLUME TO ADD
10x	135 µL
5x	270 µL
2x	675 µL

Example Protocols

To use **Biomeme LyoRNA™ Master Mix**, gently tap the glass vial to settle the freeze-dried contents and unscrew the cap. Re-suspend the dry reagents and mix with diluent and target-specific primers and probes. Examples of experimental protocols are provided below.

Once all components are combined, the 5x reaction mix is aliquoted into PCR reaction tubes (see: Biomeme Go-Strips™). Template total nucleic acids are added and the tubes are ready for thermocycling and analysis. Non-template controls may use water to substitute template.

5X REACTION MIX GUIDE	REACTION VALUE	FOR 10 PCR REACTIONS
Template nucleic acid per reaction	10 µL	-
Biomeme RNA Master Mix (5x concentration)	4 µL	40 µL
20x Primer & Probe Mix (target-specific; not supplied) Forward primer Reverse primer Dual-labelled hydrolysis probe / Molecular Beacon	1 µL	10 µL
Diluent (typically nuclease-free water)	5 µL	50 µL
Total Volume	20 µL	100 µL
Volume of reaction mix to aliquot into ea. reaction tube without template	10 µL	10 µL

Storage

Biomeme LyoRNA™ Master Mix should be stored in its original packaging at 15-30°C. If opened in a highly humid environment, the dry reagent resists humidity for up to one hour. Once reconstituted in water, it will remain stable for 24 hours if refrigerated at 2-8°C.

To store the master mix long-term, re-suspend it to 2x concentration with a diluent containing 8-16% (by volume) molecular biology-grade glycerol. Store it at -20°C.

Disclaimer

For Research Use Only. Not for use in human or veterinary diagnostics. The performance characteristics of this product have not been Established.

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