

NTRK1 NTRK2 NTRK3

Test for *NTRK* fusions with RNA-based Oncomine next-generation sequencing assays

2–3 day turnaround time with as little as 10 ng of RNA

The *NTRK* gene family encodes the TRK family of proteins—oncogenic drivers across multiple tumors in adults and children. *NTRK* fusions to unrelated genes result in overexpression and permanent activation of the TRK fusion proteins. Detection of *NTRK* fusions has become a primary need in precision oncology research. RNA-based next-generation sequencing (NGS) is the preferred method for *NTRK* fusion detection.^{1,2}

Ion Torrent™ Oncomine™ NGS assays come to you as part of an integrated end-to-end, sample-to-answer solution. They have been carefully designed for oncology labs, and are easy to implement and simple to use.

These assays provide everything you need from NGS assay technology for precision oncology testing:

- A complete workflow, including bioinformatics optimized and validated to work together seamlessly
- Relevant biomarker coverage
- Low sample input requirements, enabling testing of very small samples
- Fast, 2–3 day turnaround time from sample to report

Oncomine assays for *NTRK1*, *NTRK2*, and *NTRK3* fusion testing

Oncomine assays are RNA-based NGS assays that detect all *NTRK1*, *NTRK2*, and *NTRK3* gene fusions in as little as 48 hours, from specimens with as little as 10 ng of RNA. Each assay includes both a DNA and RNA panel, enabling detection of key cancer driver variations such as *EGFR*, *ALK*, *ROS1*, *BRAF*, *KRAS*, *RET*, *ERBB2*, and many others.



OncoPrint assays	Number of genes	Validated sample types
OncoPrint Comprehensive Assay V3	161	FFPE tissue
OncoPrint Focus Assay	52	FFPE tissue
OncoPrint Childhood Cancer Research Assay	203	FFPE tissue, blood, and bone marrow

OncoPrint solutions for *NTRK* testing workflow

OncoPrint solutions are powered by the Ion GeneStudio™ S5 System. Together with the Ion Chef™ instrument for automated sample preparation, and a complete bioinformatics workflow that includes reporting by OncoPrint Reporter, OncoPrint solutions provide a truly integrated workflow, which can deliver results in 48 hours. Plus, our line of products is optimized and validated to work together seamlessly for a simplified NGS experience, provided by a single trusted partner.

Biomarker	Therapies	Guidelines	Trials
<i>NTRK1</i> fusion Non-small cell lung cancer (FFPE tissue)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>KRAS</i> G12D Colorectal cancer (Liquid biopsy)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
45.89 Mut/Mb Melanoma (Tumor mutational burden)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Accelerate successful implementation of OncoPrint assays in your lab with Analytical Validation Consulting services

Analytical Validation (AV) Consulting service provides technical project management of your lab's AV to help verify that the assay is tested for required parameters. We work with you to optimize and develop your validation workflow while providing data analysis support and template documentation as part of your end-to-end instrument and reagent investment. On average, we can help you complete the validation process 62–75% faster than on your own; and by supplying control samples, data analysis, and reporting, we can help you reduce costs up to 50% for your completed AV.

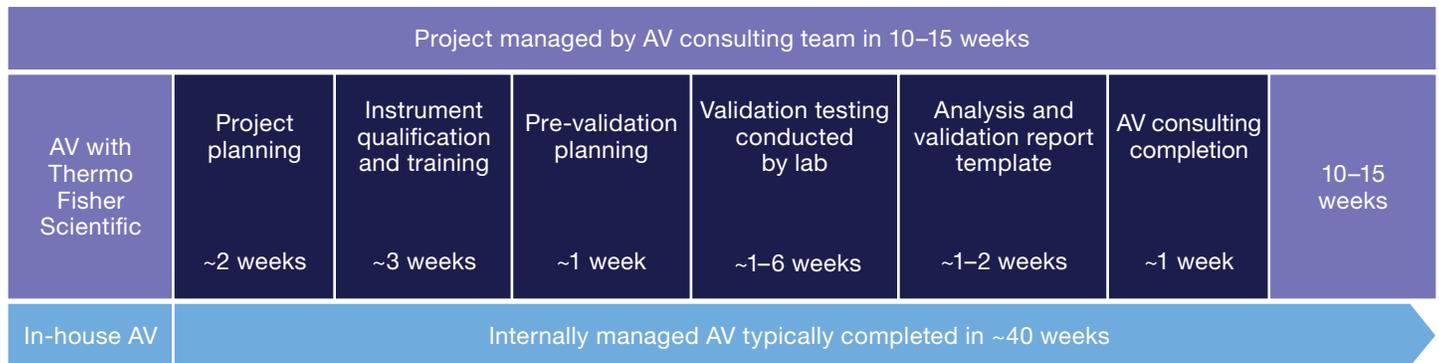


Figure 1. Analytical validation workflow completed 62–75% faster with AV consulting service.

References

- Amatu A, Sartore-Bianchi A, Siena S. *NTRK* gene fusions as novel targets of cancer therapy across multiple tumour types. *ESMO Open*. 2016;1(2):e000023.
- Yoshihara K, Wang Q, Torres-Garcia W et al. The landscape and therapeutic relevance of cancer-associated transcript fusions. *Oncogene*. 2015;34(37):4845-4854.

For more information about OncoPrint NGS solutions, go to oncoPrint.com

