Precision oncology

Oncomine Dx Target Test—enable your laboratory for the future of cancer care

Analyze all key biomarkers for *EGFR, ALK, BRAF,* and *ROS1* kinase inhibitors, and many more currently in clinical trials, from one sample, in one report, in 4 days

The Ion Torrent™ Oncomine™ Dx Target Test enables next-generation sequencing (NGS) in your laboratory with *in vitro* diagnostic test quality and support.

The only solid tumor biomarker test, which can:

- Detect 46 cancer driver gene variants, including *EGFR* mutations (including L858R, T790M, and exon 19 deletions); *BRAF, KRAS, ERBB2*, and *MET* exon 14 skipping mutations; and *ALK, ROS1, RET*, and *NTRK1/2/3* fusions
- Offers an all-in-one report to support treatment decisions—including multiple drug indication options—enabling time and cost savings
- Designed to deliver results even for challenging small samples, meaning more patients can potentially access targeted therapies
- Enable faster treatment decisions by generating laboratory results in 4 days

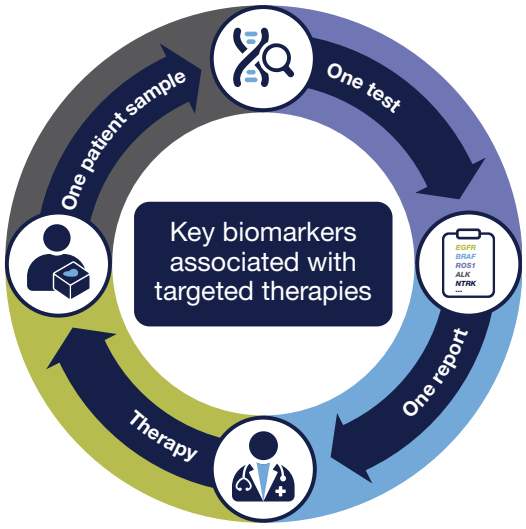

Figure 1. The Oncomine Dx Target Test offers key biomarkers associated with targeted therapies from one sample, in one test workflow, and one report.

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With the Oncomine Dx Target Test, you and your care team are ready for the future

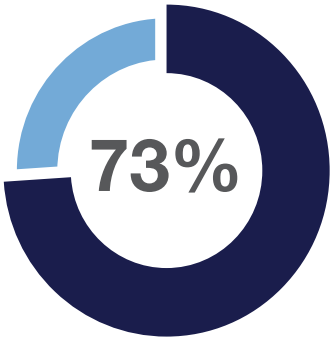

Figure 2. The percent of oncology drugs in development that are personalized medicines.*

In oncology, most of the drugs in development are precision medicines associated with molecular testing. As such, fast, broad, and accessible genomic profiling is becoming one of the key factors to ensure patients' access to the therapies they could potentially benefit from.

The 46 gene targets included in the Oncomine Dx Target Test are cancer driver genes, based on their role in cancer pathogenesis, that have the potential to be therapy targets. Many of them are already targets of approved or investigational therapies for solid tumors.

The Oncomine Dx Target Test can help ensure that your lab will be ready to provide your oncologists with these biomarkers as they become relevant, without the need for additional resources to implement new and emerging tests.

NSCLC	Colon	Melanoma	Ovarian	Gastric
AKT1	*ALK*	*ALK*	*AKT1*	*ALK*
ALK	*BRAF*	*BRAF*	*BRAF*	*EGFR*
BRAF	*EGFR*	*GNA11*	*FGFR3*	*ERBB2*
EGFR	*ERBB2*	*GNAQ*	*GNA11*	*ERBB3*
ERBB2	*ERBB3*	*HRAS*	*GNAQ*	*FGFR2*
ERBB3	*HRAS*	*KIT*	*HRAS*	*FGFR3*
KRAS	*IDH1*	*KRAS*	*KRAS*	*MET*
MET	*KRAS*	*MAP2K1*	*MAP2K1*	*NTRK1/2/3*
NTRK1/2/3	*NRAS*	*NRAS*	*NRAS*	*PIK3CA*
PIK3CA	*NTRK1/2/3*	*NTRK1/2/3*	*NTRK1/2/3*	
RET	*PIK3CA*	*RAF1*		
ROS1	*ROS1*	*ROS1*		

Figure 3. Examples of genes with cancer driver variants associated with different tumor types.

DNA panel, hotspot genes	*AKT1*	*FGFR2*	*MAP2K1*
	ALK	*FGFR3*	*MAP2K2*
	AR	*GNA11*	*MET*
	BRAF	*GNAQ*	*MTOR*
	CDK4	*HRAS*	*NRAS*
	CTNNB1	*IDH1*	*PDGFRA*
	DDR2	*IDH2*	*PIK3CA*
	EGFR	*JAK1*	*RAF1*
	ERBB2	*JAK2*	*RET*
	ERBB3	*JAK3*	*ROS1*
	ERBB4	*KIT*	*SMO*
	ESR1	*KRAS*	
RNA panel, fusion drivers	*ABL1*	*ETV4*	*NTRK2*
	ALK	*ETV5*	*NTRK3*
	AXL	*FGFR1*	*PDGFRA*
	BRAF	*FGFR2*	*PPARG*
	ERBB2	*FGFR3*	*RAF1*
	ERG	*MET*	*RET*
	ETV1	*NTRK1*	*ROS1*

Figure 4. All genes included in the Oncomine Dx Target Test.

Table 1. Concordance between Oncomine Dx Target Test and reference method for 4 companion diagnostic markers.

Variants for therapy selection	Validated comparator methods	Positive percent agreement	Negative percent agreement	Overall percent agreement
BRAF v600E	Validated *BRAF* v600E qPCR test	100%	100%	100%
EGFR		98.6%	99.2%	99.0%
EGFR exon 19 deletions	Validated *EGFR* PCR test	97.6%	99.2%	99.0%
EGFR exon 21 L858R		100%	100%	100%
ROS1 fusions	Validated *ROS1* FISH test	80%	100%	96.5%
ALK fusions	Vysis *ALK* FISH test	87%	98%	93%

* The Personalized Medicine Report: Opportunity, Challenges, and the Future (2017) Personalized Medicine Coalition (PMC).

Find out more at **oncomine.com**

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