

MRDTect™

NPM1 and FLT3 ITD Panel

The **MRDTect NPM1 and FLT3 ITD Panel** is a robust NGS assay designed to interrogate low allele frequency NPM1 mutations and FLT3 internal tandem duplications (ITDs). The panel uses proprietary Stem-Loop Inhibition-Mediated amplification (SLIMamp®) technology, a tiled amplicon-based library prep chemistry, designed by Pillar's AI-empowered VersaTile™ Primer Design tool, for efficient single-tube target enrichment.

MRDTect NPM1 and FLT3 ITD Panel

FLT3

NPM1

Simple, Rapid NGS Library Prep Workflow

- Single-tube library prep simplifies assay setup and reduces hands-on time
- Flexible stopping points support efficient sample batching
- Faster turnaround times with sample-to-result in <48 hours

Accurate, Reproducible Results

- Variants detectable at VAFs* as low as 10^{-5}
- Consistent performance across low-input and degraded DNA samples
- Robust assay design supports reproducible results across runs

Scalable NGS Testing with Intuitive Informatics

- Facilitates an efficient and economic adoption of in-house NGS workflows
- Low read requirements support scalable, high-throughput testing
- Integrated informatics with a user-friendly Graphical User Interface (GUI)
- Streamlined analysis supports a clear path from sample to results

MRDTect NPM1 and FLT3 ITD Panel Specifications

Enrichment chemistry	Amplicon-based multiplex PCR
Number of pools	1 pool
Number of genes	2
Total panel size	0.4kb
Variant types	SNVs, indels, small duplications, internal tandem duplications (ITDs)
Average amplicon size	74bp
Recommended DNA input range	For a target VAF of 10^{-4} : 500ng to 700ng For a target VAF of 10^{-5} : 700ng
Sample types	DNA from blood, PBMCs, WBCs, or bone marrow
Mapping rate**	~99.6%
% on-target aligned reads**	~99.2%
Recommended reads per sample†	For a target VAF of 10^{-4} : ≥ 1.2 M paired-end reads For a target VAF of 10^{-5} : ≥ 8.9 M paired-end reads

**Mapping rate and percentage of on-target aligned reads are averages based on internal testing performed using reference standard materials and analysis using PIVAT®. Metrics are calculated using results from 500-700ng input. †Recommended reads per sample depends on input amount and targeted minimum VAF.

Ordering information

Select the panel **and** one of the index kit options listed below.

Panel		Part Number
MRDTect NPM1 and FLT3 ITD Panel (24 reactions)		HDA-MY-1011-24

Pillar Unique Dual Index Kit Options	Reactions	Part Number
Pillar Biosciences LBx Indexing Kit A	24 Combinations, 96 reactions	IDX-PI-1013-96
Pillar Biosciences LBx Indexing Kit B	24 Combinations, 96 reactions	IDX-PI-1014-96

To order or learn
more, please visit
pillarbiosci.com

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