

Myeloid NGS Panel: Change in Assay/Platform

Date: July 3rd, 2024

Effective Date: August 21st, 2024

The Molecular Diagnostic Laboratory will shift from the current Myeloid NGS assay, which utilizes the Illumina TruSight panel (to be discontinued by Illumina), to the Thermo Fisher Oncomine Myeloid Assay v2. Ordering procedures for the new assay will remain unchanged (MCMP).

The Oncomine Myeloid Assay is performed on the Thermo Fisher Genexus platform, offering advantages such as a highly automated workflow and significantly reduced turnaround times (5-10 working days). This assay will enhance our gene coverage, increasing from 35 to 45 genes. Notably, the Oncomine Myeloid Assay can detect mutations in the genes *CEBPA* and *CALR*, which are not covered by the current Illumina TruSight Myeloid panel. Additionally, the new panel includes full gene or hotspot region coverage for the following genes not covered by the Illumina Myeloid Assay: *ABL1*, *ANKRD26*, *DDX41*, *HRAS*, *IKZF1*, *NF1*, *PPM1D*, *PRPF8*, *RB1*, *SH2B3*, *SMC1A*, and *SMC3*.

Genes covered on the Illumina Myeloid Panel but not on the Oncomine Myeloid Assay are: *NOTCH1* and *GATA1*.

Oncomine Myeloid Assay Gene List:

Hotspot genes (28)		Full genes (17)	
<i>ANKRD26</i>	<i>KRAS</i>	<i>ASXL1</i>	<i>PRPF8</i>
<i>ABL1</i>	<i>MPL</i>	<i>BCOR</i>	<i>RB1</i>
<i>BRAF</i>	<i>MYD88</i>	<i>CALR</i>	<i>RUNX1</i>
<i>CBL</i>	<i>NPM1</i>	<i>CEBPA</i>	<i>SH2B3</i>
<i>CSF3R</i>	<i>NRAS</i>	<i>ETV6</i>	<i>STAG2</i>
<i>DDX41</i>	<i>PPM1D</i>	<i>EZH2</i>	<i>TET2</i>
<i>DNMT3A</i>	<i>PTPN11</i>	<i>IKZF1</i>	<i>TP53</i>
<i>FLT3 (ITD + TKD)</i>	<i>SMC1A</i>	<i>NF1</i>	<i>ZRSR2</i>
<i>GATA2</i>	<i>SMC3</i>	<i>PHF6</i>	
<i>HRAS</i>	<i>SETBP1</i>		
<i>IDH1</i>	<i>SF3B1</i>		
<i>IDH2</i>	<i>SRSF2</i>		
<i>JAK2</i>	<i>U2AF1</i>		
<i>KIT</i>	<i>WT1</i>		



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With the launch of the Oncomine Myeloid Assay, we will be deactivating the Mayo NGSSM send-out.

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