

Oncomine Myeloid Assay GX

One-day genomic profiling for myeloid samples

Myeloid samples can be challenging to profile. They're complex and heterogeneous, and they can proliferate rapidly. Traditional single-gene approaches to myeloid profiling can be laborious and time-consuming—especially as the list of relevant genes continues to grow.

Laboratories need a streamlined way to profile all key mutations—quickly and efficiently.

Now there is a better solution. With the Ion Torrent™ Oncomine™ Myeloid Assay GX on the Ion Torrent™ Genexus™ System, you can get a comprehensive myeloid mutational profile from a single next-generation sequencing (NGS) run, with results in just one day.*

A highly integrated workflow lets you go from specimen to report with only 10 minutes of hands-on time and two user touchpoints. It's never been easier to implement NGS testing in your lab.

Comprehensive coverage of biomarkers associated with major myeloid disorders

With the Oncomine Myeloid Assay GX, you can profile 40 DNA target genes and 29 RNA fusion driver genes simultaneously. This broad fusion panel allows you to detect over 600 unique fusion isotypes. The panel content is applicable to all the major myeloid disorders—AML, MDS, MPN, CMML, and JMML.

Highlights

Rapid turnaround time—go from specimen to report in one day*

Fully automated workflow—process samples with just two user touchpoints and 10 minutes of hands-on time

DNA and RNA in one assay—simultaneously profile 40 key DNA genes and 29 RNA fusion drivers, allowing you to detect >600 fusion isotypes

Comprehensive coverage—profile samples for all major myeloid disorders, including AML, MDS, MPN, CMML, and JMML

Integrated reporting—get annotated variants, including links to relevant evidence from public data sources

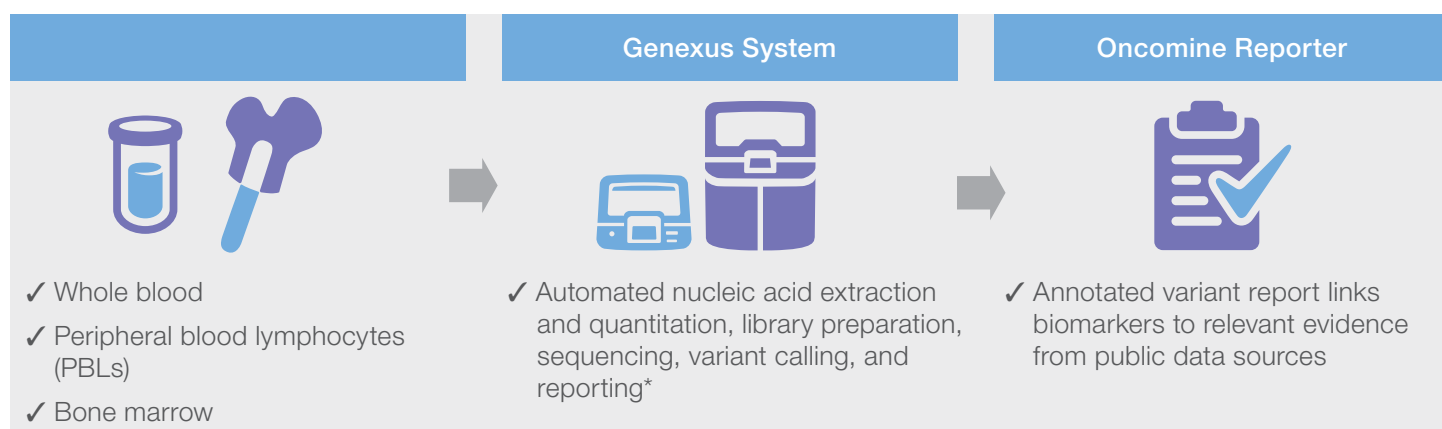
Table 1. Oncomine Myeloid Assay GX gene targets.

Hotspot genes (23)			Full genes (17)			Fusion driver genes (29)				Expression genes (5)	Expression control genes (5)
<i>ABL1</i>	<i>IDH1</i>	<i>SETBP1</i>	<i>ASXL1</i>	<i>IKZF1</i>	<i>SH2B3</i>	<i>ABL1</i>	<i>FGFR1</i>	<i>MET</i>	<i>PDGFRB</i>	<i>BAALC</i>	<i>EIF2B1</i>
<i>BRAF</i>	<i>IDH2</i>	<i>SF3B1</i>	<i>BCOR</i>	<i>NF1</i>	<i>STAG2</i>	<i>ALK</i>	<i>FGFR2</i>	<i>MLLT10</i>	<i>RARA</i>	<i>MECOM</i>	<i>FBXW2</i>
<i>CBL</i>	<i>JAK2</i>	<i>SRSF2</i>	<i>CALR</i>	<i>PHF6</i>	<i>TET2</i>	<i>BCL2</i>	<i>FUS</i>	<i>MLLT3</i>	<i>RBM15</i>	<i>MYC</i>	<i>PSMB2</i>
<i>CSF3R</i>	<i>KIT</i>	<i>U2AF1</i>	<i>CEBPA</i>	<i>PRPF8</i>	<i>TP53</i>	<i>BRAF</i>	<i>HMGA2</i>	<i>MYBL1</i>	<i>RUNX1</i>	<i>SMC1A</i>	<i>PUM1</i>
<i>DNMT3A</i>	<i>KRAS</i>	<i>WT1</i>	<i>ETV6</i>	<i>RB1</i>	<i>ZRSR</i>	<i>CCND1</i>	<i>JAK2</i>	<i>MYH11</i>	<i>TCF3</i>	<i>WT1</i>	<i>TRIM27</i>
<i>FLT3</i>	<i>MPL</i>	<i>NRAS</i>	<i>EZH2</i>	<i>RUNX1</i>		<i>CREBBP</i>	<i>KMT2A</i>	<i>NTRK3</i>	<i>TFE3</i>		
<i>GATA2</i>	<i>MYD88</i>	<i>PTPN11</i>				<i>EGFR</i>	(<i>MLL</i>)	<i>NUP214</i>			
<i>HRAS</i>	<i>NPM1</i>					<i>ETV6</i>	<i>MECOM</i>	<i>PDGFRA</i>			

With a single assay, you can profile key targets such as *FLT3*, *TP53*, *CEBPA*, *NPM1*, *KIT*, *IDH1/2*, *JAK2*, *RUNX1*, and *PML-RARA*, along with many other important biomarkers that we've carefully curated using the latest insight from public data sources relevant to clinical research.

This NGS-based approach provides a wealth of insight, allowing you to drastically reduce the number of steps and different platforms traditionally required to profile myeloid samples. Detect even the most challenging targets with confidence using dedicated *FLT3-ITD* detection software.

Breakthrough automation, from specimen to report



Start with any common myeloid specimen type. From there, the Genexus System integrates and automates the entire workflow, from nucleic acid extraction to reporting. With only 10 minutes of hands-on time required, your lab can get fully operational with little training and will gain efficiencies that free up staff time to focus on other applications.

Onboard, integrated analysis provides robust variant calling and reporting without the need for an external server. The simplified user experience helps minimize the learning curve and avoid human error. Ion Torrent™ Oncomine™ Reporter is a curated knowledgebase and reporting software that links biomarkers to relevant evidence, and enables custom reporting. These tools help simplify the bioinformatics workflow and enable you to focus on finding the biological meaning of your data.

* Specimen-to-report workflow will be available after the Ion Torrent™ Genexus™ Purification System and integrated reporting capabilities are added in 2020. Fully integrated specimen-to-report workflow will be available after the Ion Torrent™ Genexus™ Software 6.4 update.

Learn more at oncomine.com/myeloid

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