



## Fast-track your entire NGS workflow with end-to-end rapid NGS

### Oncomine assays on the Genexus System

A direct connection from biological sample to oncology biomarker report in as little as 24 hours

# Rapid results require end-to-end speed on the Genexus System

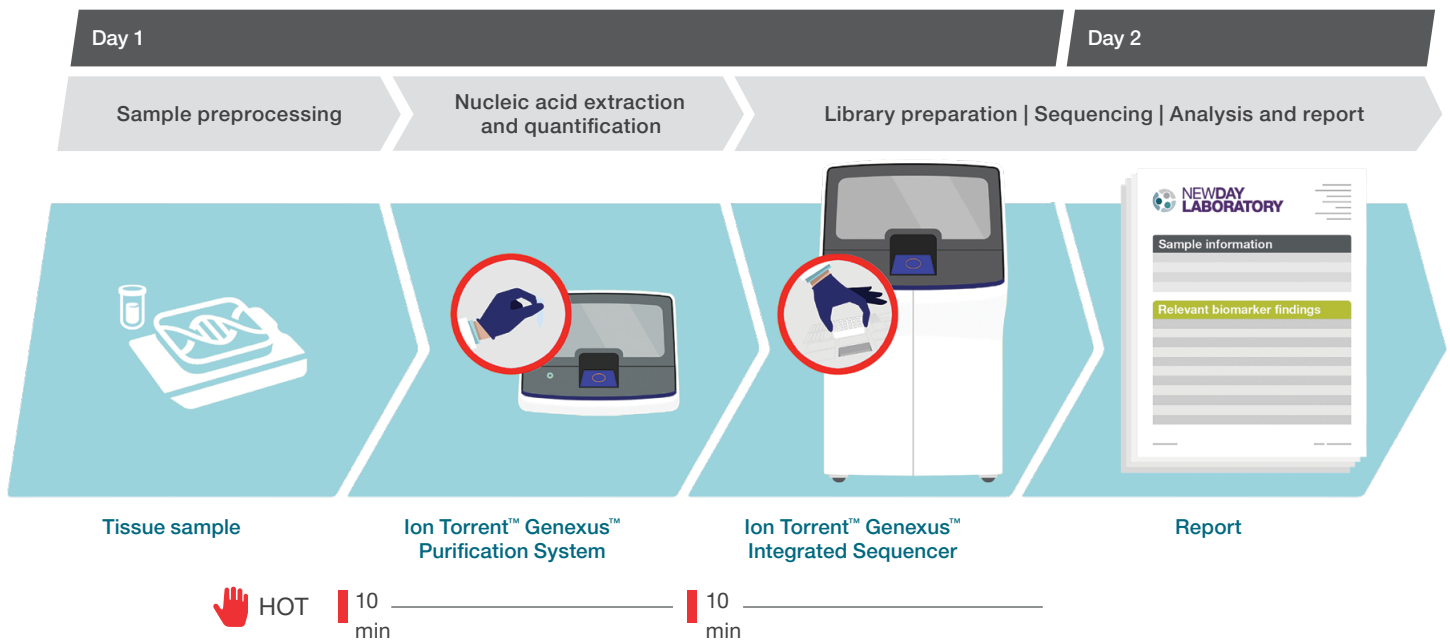
## Not all rapid NGS is created equal

Some solutions emphasize speed in only one part of the workflow, such as library preparation or sequencing. But one fast step is not the same as streamlining the entire route from sample to report. Delivering rapid results requires the entire sample-to-report workflow to move efficiently, from nucleic acid extraction and quantification through library preparation, sequencing, analysis, and reporting.

Ion Torrent™ OncoPrint™ assays on the Ion Torrent™ Genexus™ System are designed to keep every step on track with an automated, sample-to-result workflow run within one integrated software environment. With just two user touchpoints, minimal hands-on time, and simplified operation, laboratories can accelerate reporting while reducing operational complexity, even when resources are limited or prior next-generation sequencing (NGS) experience is minimal.

<b>End-to-end automation</b>	From nucleic acid extraction and quantification through library preparation, sequencing, analysis, and report generation
<b>Fast turnaround</b>	Targeted profiling in as little as 24 hours and comprehensive genomic profiling (CGP) as fast as the next day
<b>Minimal hands-on time</b>	Automated workflow with only two user touchpoints and as little as 20 minutes of hands-on time
<b>One-vendor simplicity</b>	Instruments, consumables, analysis, and support from a single source

## Genexus System: end-to-end NGS workflow solution to facilitate democratization



The fastest route to results is the one that keeps the complete workflow on track.

## From targeted profiling to CGP, without changing platforms

OncoPrint assays on the Genexus System offer a flexible route for clinical oncology research, from deep analysis of one key gene to targeted panels to CGP for solid tumors, as well as hematology research applications.

Whether the priority is rapid and cost-efficient profiling of key solid tumor biomarkers, broad CGP, or streamlined myeloid profiling in hemato-oncology research, the portfolio is designed to combine speed, automation, and relevant biomarker coverage in one end-to-end and highly automated workflow.

This helps laboratories move from sample-to-report with minimal hands-on time, integrated analysis, and the flexibility to generate the relevant insights in a rapid and cost-efficient manner.

Research area	Solid tumors				Hematology
	Gene-specific panel	Targeted panel	Expanded targeted panel	Comprehensive panel	
Assay	Ion Torrent™ OncoPrint™ BRCA Assay GX	OncoPrint™ Precision Assay	Ion Torrent™ OncoPrint™ Comprehensive Assay v3	Ion Torrent™ OncoPrint™ Comprehensive Assay Plus	Ion Torrent™ OncoPrint™ Myeloid Assay GX v2
Description	Focused <i>BRCA1/2</i> profiling	Rapid profiling of key biomarkers	Broader biomarker coverage	Broad molecular profiling	Myeloid disorders profiling
Sample types	Formalin-fixed, paraffin-embedded (FFPE) tissue, whole blood	FFPE tissue; liquid biopsy	FFPE tissue	FFPE tissue	Whole blood, peripheral blood leukocytes, bone marrow
Coverage	<i>BRCA1/2</i>	50 key genes, DNA, RNA	161 genes, DNA, RNA	517 genes, DNA, RNA	45 DNA target genes and 34 RNA
Alteration types	Single nucleotide variants (SNVs), insertions/deletions (indels), and large genomic rearrangements	SNVs, indels, copy number variations (CNVs), and fusions		SNVs, indels, CNVs, fusions, plus homologous recombination deficiency (HRD), tumor mutational burden (TMB), and microsatellite instability (MSI)	SNVs, insertions, deletions, internal tandem duplications (ITDs), partial tandem duplications (PTDs), and gene fusions
Input	10 ng DNA	10 ng DNA or RNA	10 ng DNA or RNA	30 ng DNA and 20 ng RNA	20 ng DNA and 10 ng RNA
Turnaround time	As little as 24 hours	As little as 24 hours	As little as 24 hours	As fast as the next day	As little as 24 hours

From rapid targeted genomic profiling of solid tumor samples in 24 hours to next-day CGP myeloid profiling, one Genexus System workflow supports multiple oncology research routes.



## Featured solutions

### OncoPrint Precision Assay

#### Rapid and efficient targeted profiling across key solid tumor biomarkers

The OncoPrint Precision Assay is designed for laboratories that need fast access to relevant biomarker information across multiple solid tumors without stepping up to a larger panel than needed. With low input requirements and coverage of key genomic alterations (SNVs, indels, CNVs, and fusion targets), it offers an efficient route to genomic profiling of solid tumor samples when speed and simplicity matter.

#### Key information:

- Results in as little as 24 hours
- Compatible with FFPE tissue and liquid biopsy samples
- Requires only 10 ng DNA or RNA input
- Covers 50 key genes with 45 mutations, 14 CNVs, and 19 fusion variants across relevant solid tumor biomarkers

**Possible fit:** a strong option for rapid and cost-efficient genomic profiling of solid tumor samples of key biomarkers across multiple tumors from limited or challenging tissue samples, or from liquid biopsy samples when tissue is unavailable, while staying within the same streamlined workflow.

### OncoPrint Comprehensive Assay Plus

#### Next-day CGP in one automated workflow

The OncoPrint Comprehensive Assay Plus is positioned as the broadest profiling option in this featured set, enabling CGP on the Genexus System with next-day results. It combines extensive genomic coverage with the ability to detect genomic alterations and complex signatures in a single workflow. For laboratories that need more than targeted profiling alone, it provides a route to deeper molecular insight while preserving the same automated, end-to-end Genexus System experience. This makes it especially valuable when broader profiling is required to expand study opportunity or to investigate samples beyond the scope of smaller panels.

#### Key information:

- 517-gene CGP assay
- Detects SNVs, indels, CNVs, and fusions
- Also reports HRD, TMB, and MSI genomic signatures
- Enables next-day results on the Genexus System
- Recommended input: 30 ng DNA and 20 ng RNA
- Supports the sample-to-report workflow with as little as 20 minutes of hands-on time

**Possible fit:** for tumor samples requiring comprehensive molecular insight, including advanced genomic signatures beyond the reach of smaller targeted assays, samples of unknown tumor origin, or cases where a smaller targeted panel yields negative results.



### OncoPrint Myeloid Assay GX v2

#### Rapid, automated, and complete myeloid genomic profiling

The OncoPrint Myeloid Assay GX v2 extends the same rapid Genexus System workflow into hemato-oncology research, helping laboratories consolidate multiple myeloid tests into one NGS run. It's positioned as a more rapid, automated, and complete approach for profiling key mutations associated with major myeloid disorders, including both DNA mutations and RNA-based translocations. With broad DNA and RNA target coverage, one-day turnaround, and integrated reporting, the OncoPrint Myeloid Assay GX v2 provides a streamlined alternative to labor-intensive single-analyte workflows and allows labs to bring myeloid profiling onto the same end-to-end platform used for solid tumor applications.

#### Key information:

- Results in as little as 24 hours
- Requires only 20 minutes of hands-on time
- Profiles 45 DNA target genes and 34 RNA fusion driver genes
- Covers more than 800 unique fusion transcripts
- Detects SNVs, indels, ITDs, PTDs, and gene fusions
- Input requirements: 20 ng DNA and 10 ng RNA
- Curated for major myeloid disorders, including acute myeloid leukemia (AML), myelodysplastic syndromes (MDS), myeloproliferative neoplasms (MPN), chronic myeloid leukemia (CML), chronic myelomonocytic leukemia (CMML), and juvenile myelomonocytic leukemia (JMML)

**Possible fit:** for consolidating myeloid profiling with both DNA and RNA targets in one automated, sample-to-report workflow.

### Additional custom NGS testing solutions

Looking for something more tailored? If you do not see an OncoPrint assay or panel that fits your needs, our custom menu services can help. Whether your project focuses on a few regions or hundreds of targets, you can design custom Ion AmpliSeq™ panels to support your NGS testing goals.

For guidance on panel type and design strategy, use the Ion AmpliSeq™ Designer online tool at [ampliseq.com](https://www.ampliseq.com) or connect with one of our knowledgeable representatives.

## Here for every step of your NGS journey

Get all you need to implement and run Oncomine assays, from instruments to consumables. Thermo Fisher Scientific also supports Oncomine™ Solutions users with services designed to help laboratories implement, optimize, and sustain rapid NGS workflows with confidence.\* Whether you are a new customer in need of instrument setup assistance or an established user looking to troubleshoot, add a new assay to your workflow, or perform an analytical validation, we are with you every step of the way.

### Service and support for Oncomine Solutions users



#### Customer concierge services

We streamline and simplify the process with one point of contact who organizes and coordinates everything to help ensure your laboratory is set up for success.\*\*

- Site readiness check
- Installation scheduling
- Delivery
- Training scheduling



#### Oncology application consultants

Dedicated professional consultancy for the full workflow, from extraction to report—truly personalized to your laboratory.

- Applicant trainings
- Troubleshooting
- Quality control support



#### Comprehensive instrument service and support

Our ISO-certified field engineers are available to assist you on-site and remotely.

- Service plans with timely responses
- Qualification services
- Proactive instrument maintenance
- Remote support via secure, real-time audio/video tools and the Instrument Connect mobile app



#### Analytical validation (AV) consultation

We facilitate your assay analytical validation so you can start up to 62% faster† and control cost.

- Project management consultation by an AV specialist
- Dedicated on-site application scientist
- Workflow training, guidance, and optimization
- Technical review consultation for data analysis



#### Bioinformatics professionals

Our specialists will set up, support, and train you in the provided bioinformatics solutions.

- Customized bioinformatics setup and maintenance
- White-glove services for assay customization and custom panel designs
- Data backup services
- Software upgrades
- Training

\* Some options mentioned here are paid services. See [thermofisher.com/oncomine](https://thermofisher.com/oncomine) for more information.

\*\* Consulting services offer guidance to help enable analytical validation for research efforts only.

† Based on internal data.

**Choose Oncomine Solutions on the Genexus System—an end-to-end rapid NGS route with support at every step.**

Learn more at [thermofisher.com/oncomine-rapidngs](https://thermofisher.com/oncomine-rapidngs)