

# Connecting patients everywhere to precision oncology

## OncoPrint Dx Express Test (CE-IVD)

A patient's tumor profile has the potential to guide precision oncology care, but optimal treatment decisions rely on timely results.<sup>1,2</sup>

Now, with the Ion Torrent™ OncoPrint™ Dx Express Test on the Genexus™ Dx System, you can perform fast next-generation sequencing (NGS) testing for clinically relevant biomarkers in as little as 24 hours. This specimen-to-report solution is easy to implement and operate with minimal hands-on time and offers industry-leading low sample input requirements. The proven amplicon-based technology allows ~95% sample success rates.<sup>3</sup>

If your lab routinely tests patient samples for oncology biomarkers, the OncoPrint Dx Express Test will enable you to:

- Easily integrate NGS into your laboratory workflow.** With automated library preparation, sequencing, analysis, and reporting involving 20 minutes of hands-on time and a single *in vitro* diagnostic (IVD) software, the OncoPrint Dx Express Test reduces laboratory staff burden and the potential for human errors, and alleviates the need for specialized bioinformatics expertise.
- Detect clinically relevant gene targets recommended by professional guidelines for multiple solid tumors.<sup>1</sup>** The OncoPrint Dx Express Test detects substitutions, insertions and deletions, copy number variants (CNVs), and fusions and splicing variants across 46 genes, including *ALK*, *BRAF*, *EGFR*, *ERBB2*, *KRAS*, *MET*, *NTRK1/2/3*, *RET*, and *ROS1*, among others.
- Generate results in as little as 24 hours.** This enables the integration of molecular and immunohistochemistry (IHC) results into one complete report to aid clinicians in making timely therapy decisions.
- Help ensure that more patients receive genomic insights.** Requiring only 10 ng of DNA and RNA extracted from as little as two 5-micron formalin-fixed paraffin-embedded (FFPE) slides, results can be generated from limited tissue and small biopsies. Plasma from liquid biopsy provides an additional sample type.

**Table 1. The OncoPrint Dx Express Test gene list.**

DNA					RNA				
Deletions, insertions, and substitutions					Copy number alternations				
AKT1	<b>ERBB2</b>	IDH1	MAP2K2	PIK3CA	<b>AR</b>	<b>FGFR2</b>	ALK	NTRK1	
AKT2	<b>ERBB3</b>	IDH2	MET	PEN	<b>EGFR</b>	<b>FGFR3</b>	AR	NTRK2	
AKT3	<b>ERBB4</b>	KEAP1	NRAS	RAF1	<b>ERBB2</b>	<b>KRAS</b>	BRAF	NTRK3	
ALK	ESR1	KIT	NTRK1	RET	<b>ERBB3</b>	<b>MET</b>	<b>ESR1</b>	<b>NUTM1</b>	
AR	<b>FGFR1</b>	KRAS	NTRK2	ROS1	<b>FGFR1</b>	<b>PIK3CA</b>	<b>FGFR1</b>	RET	
ARAF	FGFR2	MAP2K1	NTRK3	STK11	<b>EGFR</b>		<b>FGFR2</b>	ROS1	
BRAF	FGFR3		PDGFRA	TP53	<b>ERBB3</b>		<b>FGFR3</b>	<b>RSP02</b>	
CDK4	FGFR4				<b>FGFR1</b>		<b>MET</b>	<b>RSP03</b>	
CHEK2	FLT3						<b>NRG1</b>		
CTNNB1	GNAS								
EGFR	HRAS								




Genes in bold are only available for FFPE.

The OncoPrint Dx Express Test covers 100% of clinical routine biomarkers in non-small cell lung cancer (NSCLC) and the majority of clinical routine biomarkers for other solid tumors according to ESMO: Tier 1 scale for clinical actionability of molecular targets<sup>1,4</sup> (Table 1).

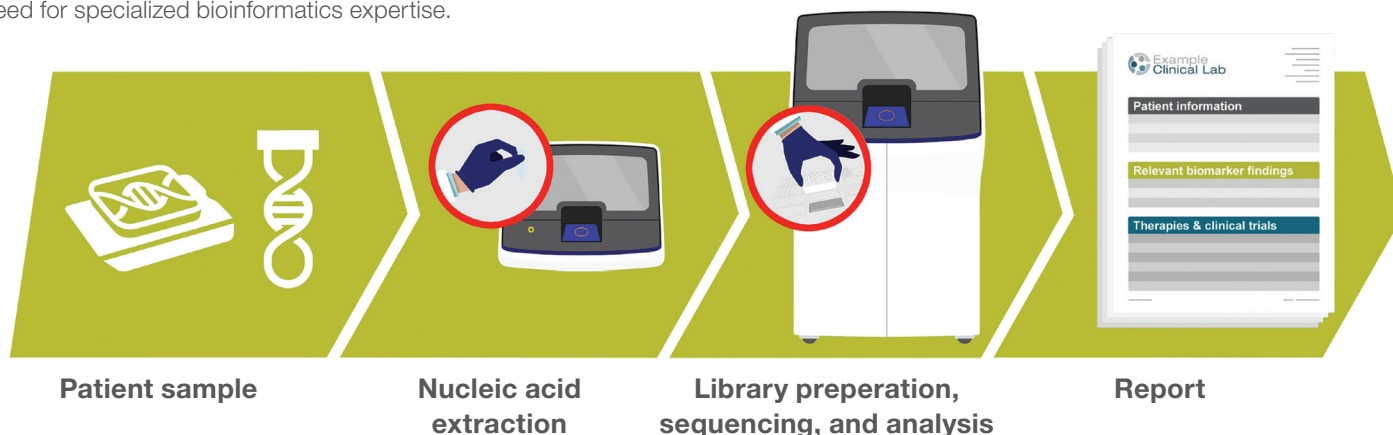
The Genexus Dx System automates the NGS workflow from patient sample to reporting and delivers results in as little as 24 hours with just two user touchpoints.\*

With automated library preparation, sequencing, and analysis from 20 minutes of hands-on time, the OncoPrint Dx Express Test reduces laboratory staff burden and the potential for human error (Figure 1). One intuitive IVD software facilitates tracking sample information through the workflow. Analysis is performed automatically on-instrument, and local reporting alleviates the need for specialized bioinformatics expertise.

OncoPrint Dx Express Test      Other NGS technologies

 <b>Time to report</b>	<b>1</b> day	<b>4–5</b> days
 <b>Hands-on time</b>	<b>20</b> minutes	<b>&gt;10</b> hours
 <b>Sample input</b>	<b>10 ng</b>	<b>40 ng</b>

**Figure 1. Comparison of NGS workflows.**



\* Timing varies by number of samples and sample type.

Elevate oncology care for your patients by implementing easy NGS biomarker testing today.

**References**

1. Mosele F, et al. (2020) *Ann Oncol* 31:1491.
2. Smeltzer M, et al. (2020) *J Thorac Oncol* 15:1434.
3. Volckmar AL, et al. (2019) *Int J Cancer* 145:649.
4. Mateo J, et al. (2018) *Ann Oncol* 29:1895.

Learn more at [thermofisher.com/oncoPrint-dxexpress](https://thermofisher.com/oncoPrint-dxexpress)

**For In Vitro Diagnostic Use. CE-IVD according to IVDD. Not available in all countries including the United States.**

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