Pioneer

the path from preclinical to CDx development

Oncomine Comprehensive Assay

With more than 900 drugs and vaccines in clinical evaluation[1], there is a fast-growing need for a universal oncology biomarker assay panel. Designed to span the continuum, from preclinical to CDx development for oncology, the Ion Torrent™ Oncomine™ Comprehensive Assay fulfills that need. This targeted, universal cancer panel enables the detection of relevant SNPs, CNVs, gene fusions and indels from 143 unique genes to inform clinical trial research programs.

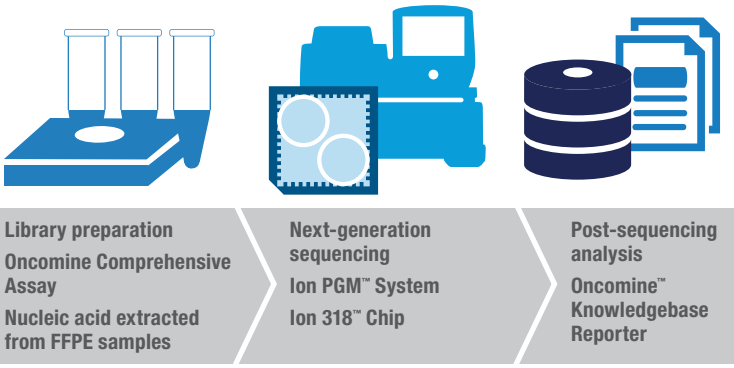

Figure 1. Library preparation is performed with the Oncomine Comprehensive Assay using nucleic acid extracted from FFPE sample. Next-generation sequencing is subsequently performed. The Oncomine Knowledgebase Reporter empowers users with actionable information to help guide important decisions in cancer research.

Developed for optimal performance

The Oncomine Comprehensive Assay is based on the proven Ion Torrent™ next-generation sequencing platform and powerful Ion AmpliSeq™ library preparation technology*, which enable:

- More next-generation sequencing variant results with minimal sample input—as little as 10 ng of nucleic acid extracted from FFPE sample per primer pool†
- Analysis of important biomarkers for both DNA and RNA targets in a single workflow
- Fast turnaround times to meet your clinical research needs—3 days from sample to answer
- Analysis of 143 highly relevant genes in 1 run, including >2,500 amplicons, 170 biomarkers and 5 positive control genes

> **Performing genetic analyses with limited amounts of sample tissue is a key challenge in oncology. Concurrent analysis of DNA and RNA will help reduce overall sample consumption and expand the availability of archived specimens needed for biomarker discovery. We are particularly keen to leverage this technology in development of a universal companion diagnostic for our pharma partners.**

–Michael Bolick, CEO
Selah Genomics, Inc.

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More results with less sample

Because the Oncomine Comprehensive Assay leverages Ion AmpliSeq technology*, it requires as little as 10 ng of input DNA or RNA per reaction† to target 143 genes, analyzing hundreds of biomarkers, including SNPs, CNVs, gene fusions and indels. Alternative methods require hundreds of nanograms of DNA or RNA, making them less practical for routine analysis of FFPE tissues commonly used in clinical cancer research, and drug and companion diagnostic development. In addition, a broad range of sample types and biopsy methods including fine needle aspirates and core needle biopsies can be effectively utilized. Moreover, this richness in biomarker coverage helps to ensure that important potentially actionable—but less prevalent—cancer variants aren't missed.

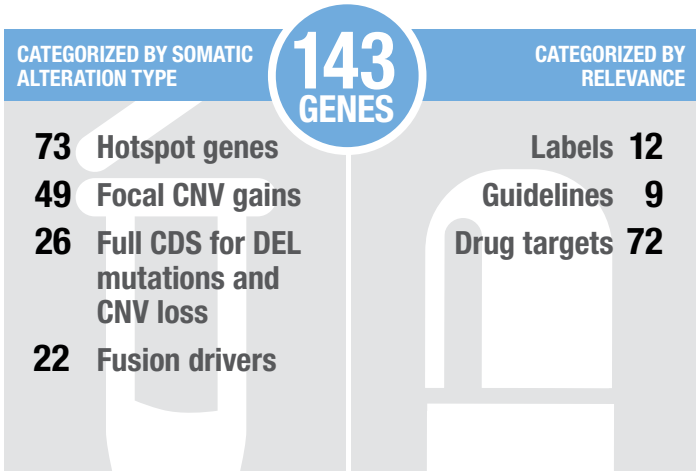

Figure 2. Summary of variants targeted with the Oncomine Comprehensive Assay and associated potentially actionable information included in the Oncomine Knowledgebase Reporter.

Applying the Oncomine™ Knowledgebase to inform product development

In selecting the highly informative targets to include in the panel*, we leveraged the Oncomine™ Knowledgebase. The Oncomine Knowledgebase is a proprietary, curated set of published evidence from clinical trials that supports the matching of driver genetic variants with potential relevant future clinical therapeutic options, published therapeutic interventions and clinical trials. Accessing the wealth of information garnered from the Oncomine Knowledgebase enabled us to develop the comprehensive, highly informed Oncomine Comprehensive Assay.

Helping to inform your data analysis and research decisions

The Oncomine Knowledgebase was further leveraged to create the Oncomine Knowledgebase Reporter—a unique knowledgebase tool developed specifically for use with data generated from samples analyzed using the assay*. The Oncomine Knowledgebase Reporter enables customers to review the potential actionability of markers and reported genetic and variant summaries covered by the assay*. This helps users inform research decisions and prepare reports that meet their specific laboratory needs.

Oncomine Comprehensive Assay	
Cat. No. A2116	Includes all necessary components to analyze 48 samples

Find out more at **thermofisher.com/oncomine-assays**

Contact a member of the clinical development team at **thermofisher.com/contact-cdx**

1 Source: Medicines in Development: Cancer, 2012 report, PhRMA

† The Oncomine Comprehensive Assay includes two DNA and one RNA primer pools. For each sample analyzed, a total of 30 ng input nucleic acid material is required.

*** For Research Use Only. Not for use in diagnostic procedures.**

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