Oncomine cfDNA Assays

Ion Torrent™ Oncomine™ cfDNA Assays are tumor type–specific, multi-biomarker next-generation sequencing (NGS) assays that enable detection of somatic mutations, down to a level of 0.1% with >98% specificity, in genes found in plasma samples.

The Oncomine cfDNA Assays and the Ion S5™ Systems enable tumor heterogeneity and reoccurrence research studies from minimal input DNA.

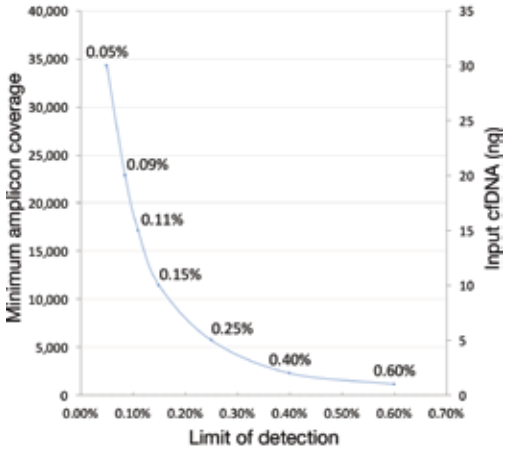

Figure 1. Amplicon coverage and input material determine limit of detection using the Oncomine cfDNA Assays.

The Oncomine cfDNA Assays include targets identified by the Oncomine™ Knowledgebase, a cancer genomics data resource, and reviewed by our trained professionals.

Assay	Genes	Selected SNV hotspots
Oncomine™ Lung cfDNA Assay	*ALK, BRAF, EGFR, ERBB2, KRAS, MAP2K1, MET, NRAS, PIK3CA, ROS1,* and *TP53*	>150 hotspots including: *EGFR*: T790M, C797S, L858R, Exon 19 del *KRAS*: G12X, G13X, Q61X *BRAF*: V600E *ALK*: Exon 21-25 *PIK3CA*: E545K, H1047R, E542K

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Optimized for liquid biopsy clinical research focused on primary driver and resistance mutations from cfDNA

The Oncomine cfDNA Assays take advantage of tag sequencing technology and Ion Torrent™ sequencing to enable researchers to develop tests that may impact treatment selection, treatment monitoring, and reoccurrence monitoring in the future.

- **Single tube of blood**—the end-to-end two-day workflow is enabled from a single tube of blood
- **Low limit of detection**—variant detection down to 0.1%, with 90% sensitivity and >98% specificity for SNV hotspots and indels
- **High-value content**—including T790M, L858R, and many more SNV hotspots, the assays enable analysis of SNV hotspots and indels identified by clinical researchers around the world

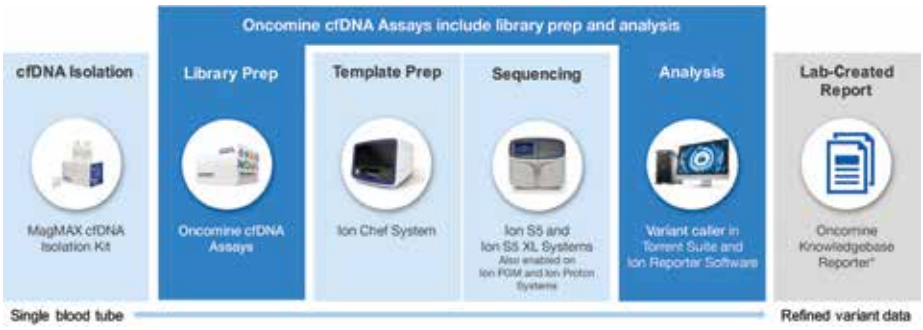

Figure 2. Comprehensive workflow for cfDNA provides streamlined analysis of genes and hotspots. Library preparation is performed with the Oncomine cfDNA Assays using nucleic acids extracted from circulating cell-free DNA. NGS is then performed. Analysis with Ion Reporter™ Software empowers clinical researchers with information to help guide important decisions in clinical research.

- **Enable results**—variant data from more samples with demonstrated, repeatable results
- **Reduced cost**—uniform coverage of tumor type–specific amplicons enables more samples per sequencing run
- **Optimized analysis**—the variant caller removes PCR errors to increase sensitivity and specificity
- **Sample tolerance**—flexible input amounts as low as 1 ng, and tolerance of sample input variability to accommodate more of your samples

When combined with the Ion S5 XL System, the Oncomine cfDNA Assays are part of a highly accurate, reproducible workflow from blood sample to variant data in two days (Figure 2).

Ordering information

Product	Cat. No.
Oncomine Lung cfDNA Assay	A31149
Tag Sequencing BC Set 1-24	A31830
Applied Biosystems™ MagMAX™ cfDNA Isolation Kit	A29319
Ion Chef™ Instrument	4484177
Ion 520 and Ion 530 Kit-Chef	A30010
Ion 530 Chip Kit	A27764
Ion S5 XL System	A27214

The Oncomine cfDNA Assays are enabled on the Ion S5 XL System, Ion S5 System, Ion Proton™ System, and Ion PGM™ System.

* Oncomine™ Knowledgebase Reporter enabled in Ion Reporter Software version 5.2 or later.

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

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