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Oncomine Colon cfDNA Assay

Enables detection of primary driver and resistance mutations from cell-free DNA down to 0.1%

The Ion Torrent™ Oncomine™ Colon cfDNA Assay is a multibiomarker next-generation sequencing (NGS) assay that enables detection of primary driver and resistance mutations from cell-free DNA (cfDNA) down to a level of 0.1%.

- **Single tube of blood**—the end-to-end, two-day workflow is enabled from NGS

- **Low limit of detection**—variant detection down to 0.1%, with 88% sensitivity and >99% specificity for SNV hotspots and indels

- **High-value content**—including genes and hotspots identified by the OncoNetwork consortium and other clinical researchers around the world
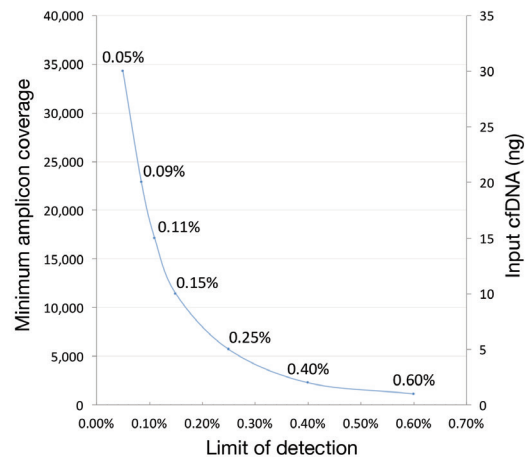

Figure 1. Amplicon coverage and input material determine limit of detection using the Oncomine Colon cfDNA Assay.

The Oncomine Colon cfDNA Assay was developed together with the OncoNetwork consortium.

Genes	Selected SNV hotspots	
AKT1, BRAF, CTNNB1, EGFR, ERBB2, FBXW7, GNAS, KRAS, MAP2K1, NRAS, PIK3CA, SMAD4, TP53, and *APC*	*KRAS/NRAS*:	G12/G13/Q61
	BRAF:	V600E
	PIK3CA:	E545K, H1047R
	TP53:	R175H R273H/C/L
	Recurrent deleterious APC mutations (including p.R876*, p.R1114*, p.Q1378*, and p.R1450*)	
	SMAD4:	R361C/H
	CTNNB1:	S45F, T41A

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- **Sample tolerance**—flexible input amounts as low as 1 ng, and tolerance of sample input variability to accommodate more of your samples

- **Cost-effective**—uniform coverage of tumor type–specific amplicons enables optimization of samples per sequencing run

- **Optimized analysis**—the variant caller has been optimized to increase sensitivity and specificity, providing information on mutation percentage

When combined with Ion Torrent™ sequencing systems, the assay is part of an accurate, reproducible workflow from blood sample to variant data in two days (Figure 2).
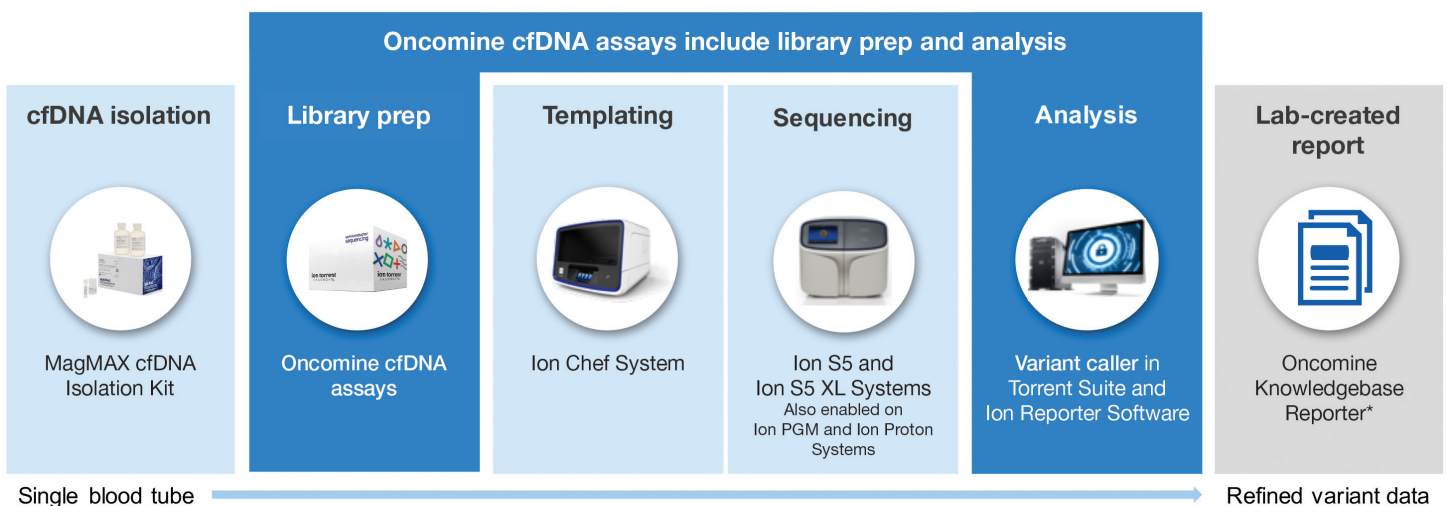
Oncomine cfDNA assays include library prep and analysis

cfDNA isolation	Library prep	Templating	Sequencing	Analysis	Lab-created report
MagMAX cfDNA Isolation Kit	Oncomine cfDNA assays	Ion Chef System	Ion S5 and Ion S5 XL Systems Also enabled on Ion PGM and Ion Proton Systems	Variant caller in Torrent Suite and Ion Reporter Software	Oncomine Knowledgebase Reporter*

Single blood tube → Refined variant data

Figure 2. Comprehensive workflow for cfDNA provides streamlined analysis of genes and hotspots.

Ordering information

Product	Cat. No.
Oncomine Colon cfDNA Assay	A31182
Tag Sequencing Barcode Set 1-24	A31830
Tag Sequencing Barcode Set 25-48	A31847
Applied Biosystems™ MagMAX™ cfDNA Isolation Kit	A29319

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 is enabled in Ion Reporter™ Software version 5.2 or later.

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

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