

Reliable detection of low abundance somatic mutations in colorectal cancer samples can be challenging due to the small specimen size and low percentage of tumor cells. New testing guidelines recommend expanded *RAS* and *RAF* genotyping, further constraining the limited specimens due to the increased number of targets.

### **AGENA'S SOLUTION**

#### > UltraSEEK® Colon Panel

Enables study of disease progression and resistance from CTCs and ctDNA, detecting over 80 variants from a single blood draw at as low as 0.1% minor allele frequency (MAF).<sup>1</sup>

## > iPLEX® HS Colon Panel

Facilitates variant detection over 100 variants, as low as 1% MAF from poor quality and degraded samples such as FFPE tissue and cytology blocks.<sup>2</sup>

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



# Genes & Mutations for Colon Panels

Pre-designed panels for the identification of prognostic and therapeutic markers across 5 genes for comprehensive profiling of colon cancer.

Gene	Coverage*
BRAF	Codons 469 (exon 11), 594, 600 (exon 15)
EGFR	Extracellular domain mutations in exon 12
KRAS	Codons 12, 13 (exon 2), 59, 61 (exon 3), 117 and 146 (exon 4)
NRAS	Codons 12, 13 (exon 2), 59, 61 (exon 3), 117 and 146 (exon 4)
PIK3CA	Codons 542, 545 (exon 9) and 1047 (exon 20)

<sup>\*</sup> Complete variant list available upon request

# **ASSAY WORKFLOW**

DNA to data in as little as 8 hours with minimal manual processing time enables greater lab efficiency. Simplified reporting with automated software generates clear results.

# ORDERING INFORMATION

Catalog No.	Item	Sample Type	# Samples	Chip Format
13262F	UltraSEEK Colon Panel Set - CPM (5x96)	Plasma	40	CPM 96
13266F	iPLEX HS Colon Panel Set - CPM (5x96)	Tissue	60	CPM 96
13332D	iPLEX HS Colon Panel Set - CPM (2x384)	Tissue	96	CPM 384
13333D	iPLEX HS Colon Panel Set - CPM (10x384)	Tissue	480	CPM 384

The panel sets contain assay specific primers and all the required reagents to process DNA samples on the MassARRAY system.

## References

- 1. R. Avula et al. Assessment of UltraSEEK Colon Cancer Panel for Detection of Low Frequency Somatic Mutations in Blood. Poster session presented at: Association of Molecular Pathology Annual Meeting; 2017 Nov 16-18; Salt Lake City, UT.
- 2. R.T. Birse, D. Irwin. Reliable Detection of Low Abundance Somatic Mutations of EGFR, KRAS, BRAF, NRAS and PIK3CA in Metastatic Colorectal Adenocarcinomas Using iPLEX HS, a New Highly Sensitive Assay for MassARRAY. Poster session presented at Association of Molecular Pathology Annual Meeting; 2016 Nov 10-12; Charlotte, NC.

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