

Sensitivity without Sacrifice

**Oncology Testing Solutions** 





# Challenges in Cancer Testing

Oncology molecular testing is challenging enough without the added complications of labor intensive workflows, complex bioinformatics, variants of unknown significance, high cost and sample requirements.

The MassARRAY® technology combined with the UltraSEEK® and iPLEX® HS chemistries eliminates these challenges while maintaining the ability to target all the clinically relevant markers from liquid and tissue biopsies.

### TOOLS FOR UNDERSTANDING CANCER

Whether researching cancer progression, studying the potential of drug candidates, or evaluating the incorporation of molecular testing in clinical practice, the need for robust technology that can address both solid tissue and liquid biopsy is in high demand. Oncology testing solutions from Agena Bioscience help laboratories navigate smoothly between these challenging sample types.

**Liquid Biopsy** 



### **Solid Tumor Profiling**



# Rapid and Sensitive Detection

### **TARGETED ASSAYS**

Detect just the variants with known analytical utility using targeted panels and minimal DNA input. The targeted panels from Agena use as little as 10 ng to identify as many as 100 variants from a single sample.

### SINGLE-DAY WORKFLOW

The simple, technician-friendly workflow gets you results from DNA in as little as 8 hours, with minimal manual processing. Analysis is clear and straight-forward

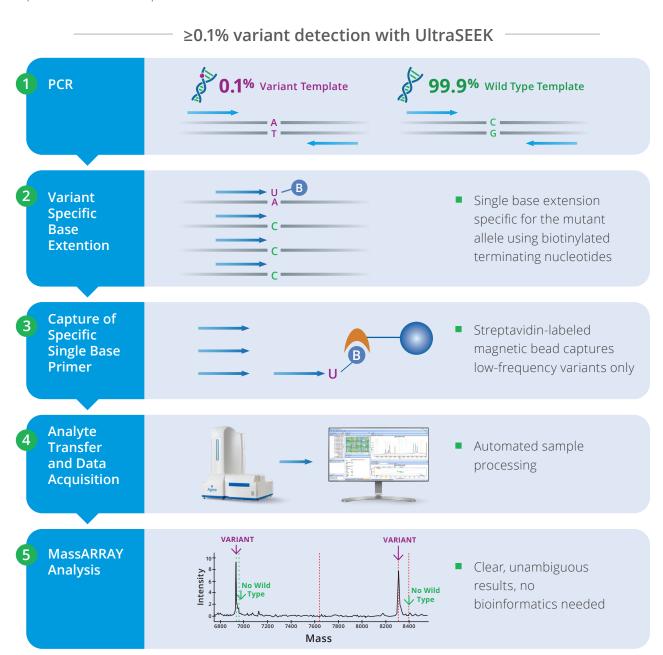


## Liquid Biopsy

With Agena, there is no need to trade off sensitivity for breadth of variant coverage. Over 100 variants, including insertions and deletions can be identified from a single blood draw, at as low as 0.1% minor allele frequency (MAF) using the UltraSEEK chemistry.<sup>1</sup>

In a recent technology comparison study, the UltraSEEK assay was found to have higher sensitivity and faster turnaround time as compared to ten other technologies, including digital droplet PCR and various NGS based assays for the detection of KRAS mutations.<sup>2</sup>

To achieve high sensitivity, UltraSEEK utilizes multiplexed PCR, followed by mutant specific single base extension and capture by streptavidin-labeled magnetic beads. Built-in controls are used to verify the presence of DNA template in the reaction.

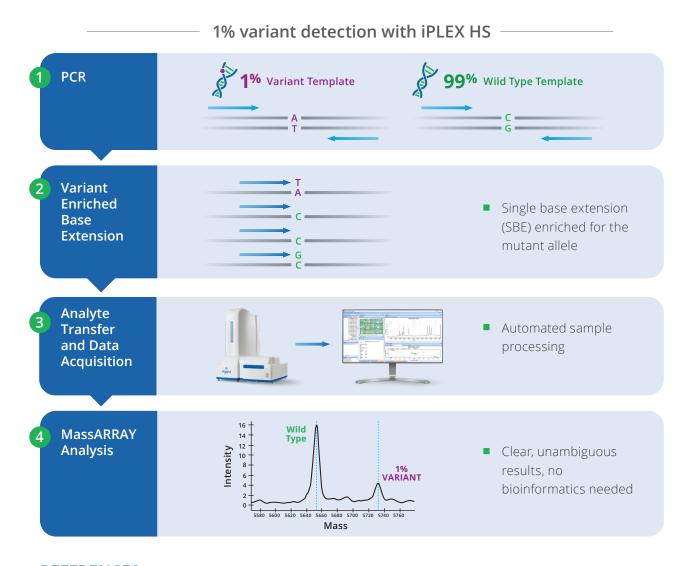




## Solid Tumor Profiling

You don't have to sacrifice samples for results. Labs typically reject 20% - 30% of tumor tissue samples due to insufficient tumor content for NGS. Pre-screening samples for known, clinically significant variants from Agena enables you to minimize sample rejection, reduce laboratory costs and provide results quickly.<sup>3</sup>

iPLEX HS enables the detection of variants as low as 1% MAF from FFPE tissue, core needle biopsies, FNA and cytology smears. The wild-type signal is restrained to achieve the increased sensitivity.



#### **REFERENCES**

- Mosko, Michael J., et al. Ultrasensitive Detection of Multiplexed Somatic Mutations using MALDI-TOF Mass Spectrometry. Journal of Molecular Diagnostics. 2016 Jan; 18(1):23-31.
- 2. Sherwood JL, Brown H, Rettino A, et al. Key differences between 13 KRAS mutation detection technologies and their relevance for clinical practice. ESMO Open 2017;2:e000235. doi:10.1136/esmoopen-2017-000235
- 3. https://www.genomeweb.com/molecular-diagnostics/intermountains-edited-cancer-panel-reducing-rate-tests-rejected-due

#### ORDERING INFORMATION

Catalog No.	Item	Sample Type	# Samples	Chip Format
13267F	iPLEX HS Lung Panel Set - CPM (5x96)	Tissue	60	96
13334D	iPLEX HS Lung Panel Set - CPM (2x384)	Tissue	96	384
13335D	iPLEX HS Lung Panel Set - CPM (10x384)	Tissue	480	384
13266F	iPLEX HS Colon Panel Set - CPM (5x96)	Tissue	60	96
13332D	iPLEX HS Colon Panel Set - CPM (2x384)	Tissue	96	384
13333D	iPLEX HS Colon Panel Set - CPM (10x384)	Tissue	480	384
13268F	iPLEX HS Melanoma Panel Set - CPM (5x96)	Tissue	60	96
13336D	iPLEX HS Melanoma Panel Set - CPM (2x384)	Tissue	96	384
13337D	iPLEX HS Melanoma Panel Set - CPM (10x384)	Tissue	480	384
13316F	ClearSEEK PIK3CA Panel Set - CPM (5x96)	Tissue	160	96
13262F	UltraSEEK Colon Panel Set - CPM (5x96)	Plasma	40	96
13263F	UltraSEEK EGFR Panel Set - CPM (2x96)	Plasma	192	96
13264F	UltraSEEK Lung Panel Set - CPM (5x96)	Plasma	40	96
13265F	UltraSEEK Melanoma Panel Set - CPM (5x96)	Plasma	40	96

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

### ADDITIONAL CUSTOM ONCOLOGY PANEL OPTIONS

- Melanomas
- Gliomas and Glioblastomas
- Translocations in Lung Cancer
- Lynch Syndrome
- Pancreatic Cancer
- Ovarian and Uterine Cancers

#### STILL DON'T SEE WHAT YOU ARE LOOKING FOR?

The flexibility of iPLEX HS and UltraSEEK chemistries enable custom content for a range of cancer types. The MassARRAY System can identify substitutions, insertions, deletions and copy number across implicated genes. Contact your local Agena Bioscience® sales representative to learn more about Assays by Agena services and to request a quote for content tailored to your needs.

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

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