





Minimize Sample Rejection in Lung Cancer Testing

Mutation profiling of non-small cell lung cancer samples can be challenging due to limited quantity & poor quality of the specimens. Several technologies, including next generation sequencing, require specimens with high tumor content and generally reject as many as 20% of the samples due to low tumor fraction and DNA yield.^{1,2}

AGENA'S SOLUTION

> UltraSEEK™ Lung Panel

Enables study of disease progression and resistance from CTCs and ctDNA, detecting 74 variants from a single blood draw at as low as 0.1% minor allele frequency (MAF). Optimized for low and poor quality DNA, reducing sample rejection and workflow failure rate.

> iPLEX® HS Lung Panel

Facilitates variant detection as low as 1% MAF from poor quality and degraded samples such as FFPE tissue, fine needle aspirates, core needle biopsies, smears, pleural fluid and cytology blocks.

> UltraSEEK EGFR Panel

Conduct a focused study across clinically relevant variants in the EGFR gene including p.T790M, p.C797S, p.E746_A750del and p.L858R.





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



Genes & Mutations for Lung Panels

Pre-designed panels with content compliant with the NCCN guidelines across 5 genes for comprehensive profiling of lung cancer.

| UltraSEEK Lung Panel | | | | |
|----------------------|---|----------------|--|--|
| Gene | Coverage* | # of Variants* | | |
| BRAF | Codons 469 (exon 11), 594, 600 (exon 15) | 4 | | |
| EGFR | Exon 19 indels, exon 20 insertions and substitutions across exons 18, 19, 20 and 21 | 46 | | |
| ERBB2 | Exon 20 insertions | 4 | | |
| KRAS | Codons 12, 13 (exon 2) and 61 (exon 3) | 16 | | |
| PIK3CA | Codons 542, 545 (exon 9) and 1047 (exon 20) | 4 | | |
| Total Variants | | 74 | | |

| iPLEX HS Lung Panel | | | | |
|---------------------|---|----------------|--|--|
| Gene | Coverage* | # of Variants* | | |
| BRAF | Codons 469 (exon 11), 594, 600 (exon 15) | 4 | | |
| EGFR | Exon 19 indels, exon 20 insertions and substitutions across exons 18, 19, 20 and 21 | 46 | | |
| ERBB2 | Exon 20 insertions | 2 | | |
| KRAS | Codons 12, 13 (exon 2) and 61 (exon 3) | 14 | | |
| PIK3CA | Codons 542, 545 (exon 9) and 1047 (exon 20) | 4 | | |
| Total Variants | | 70 | | |

| UltraSEEK EGFR Panel | | | |
|----------------------|---|----------------|--|
| Gene | Coverage* | # of Variants* | |
| EGFR | Exon 19 deletions and substitutions across Exon 20 & 21 | 6 | |
| Total Variants | | 6 | |

^{*} 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 |
|-------------|---------------------------------------|-------------|-----------|-------------|
| 13136F | Complete UltraSEEK Lung Panel Set CPM | Plasma | 32 | 96 |
| 13138F | Complete UltraSEEK Lung Panel Set CPM | Plasma | 80 | 96 |
| 13124F | Complete iPLEX HS Lung Panel Set CPM | Tissue | 48 | 96 |
| 13126F | Complete iPLEX HS Lung Panel Set CPM | Tissue | 120 | 96 |
| 13128 | Complete iPLEX HS Lung Panel Set | Tissue | 48 | 384 |
| 13124 | Complete iPLEX HS Lung Panel Set | Tissue | 48 | 96 |
| 13126 | Complete iPLEX HS Lung Panel Set | Tissue | 120 | 96 |
| 13129 | Complete iPLEX HS Lung Panel Set | Tissue | 144 | 384 |
| 13236F | Complete UltraSEEK EGFR Panel Set CPM | Plasma | 192 | 96 |

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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