The Jackson Laboratory

JAX SomaticSeq™

Comprehensive tumor profiling for precision oncology

PROFILING OF TUMORS

Molecular profiling of tumors is performed to identify genetic alterations that accumulate in cancer cells, in particular driver mutations that can serve as treatment targets. Genetic alterations identified in tumors usually include single nucleotide variants (SNVs), deletions and duplications. Fusion genes were originally associated with hematologic cancers; however, more than 300 gene fusions have been identified in almost every kind of solid tumor (including sarcomas and carcinomas of the central nervous system). Identifying and characterizing the mutations in tumors therefore can have both diagnostic and therapeutic applications. The advent of Next-Generation sequencing has enabled high-throughput, low cost, accurate molecular profiling across many tumor types.

JAX SomaticSeq™

The JAX SomaticSeq™ test reports on 517 cancer related genes for assessment of all DNA and RNA variant types such as SNVs, CNVs, indels, and fusions, in addition to MSI and TMB. Analyzed using Next-Generation sequencing (NGS), JAX SomaticSeq allows for calculation of MSI and TMB, markers that are used in predicting response to immunotherapy. All identified variants are assessed for clinical relevance based on associations in the biomedical literature with response or resistance to FDA approved targeted therapies. Evidence of association between genomic variants and potential response to therapy or availability of clinical trials curated from the peer-reviewed literature, publicly available databases, and the Clinical Knowledgebase (CKB).

- Comprehensive genomic profiling of solid tumors
- Evaluation of SNVs, CNVs, InDels, Fusions, Splice variants, MSI, and TMB
- DNA and RNA extracted from a single formal infixed paraffin embedded sample
- Streamlined library preparation allows for a single sequencing run
- Minimum 30% neoplastic content
- Reports small nucleotide variants (SNV/Indels) across 517 genes, fusions in 55 known drivers, and CNVs in 60 genes

The JAX® Advantage

EXPERTISE:

The JAX Advanced Precision Medicine Laboratory aims to maintain a CNS tumor center of excellence through the expertly trained team of scientists and analysts, and via collaborations with JAX Cancer Center researchers and local clinicians.

SPEED:

Receive results within a clinically actionable time frame to accelerate treatment decisions.

ABOUT JAX APML

The JAX Advanced Precision Medicine Laboratory is a CLIA-certified, CAP-accredited, and NCI-MATCH-designated laboratory delivering precise genomic testing and critical data analysis services to help improve treatment options for patients.

JAX ADVANCED PRECISION MEDICINE LABORATORY

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