

MayoComplete Comprehensive Sarcoma Panel, Next-Generation Sequencing, Tumor

Test ID: MCSRC

Explanation: On the effective date, testing algorithm will be updated and new reflex tests added. RNA methodology will also update.

Current Testing Algorithm

When this test is ordered, slide review will always be performed at an additional charge

New Testing Algorithm

When this test is ordered, slide review will always be performed at an additional charge.

This test includes DNA mutation and RNA fusion analyses. A reflex test is added only when there is insufficient specimen for both test components. Indicate the preferred order of testing on the paperwork. If the specimen is insufficient to perform all portions of testing, the lab will use this prioritization to select the appropriate reflex test ID, reducing communication delays. If additional tests are ordered on same specimen, include them in the prioritization preferences.

Current Reflex Tests

None

New Reflex Tests

Test ID	Reporting Name	Available Separately	Always Performed
MCSMP	MayoComplete Sarcoma Mutation Panel	Yes	No
MCRSP	MayoComplete Targeted RNAseq Panel	Yes	No

Current Method

Sequence Capture and Targeted Next-Generation Sequencing (NGS) and Polymerase Chain Reaction (PCR)-based NGS

New Method

Sequence Capture and Targeted Next-Generation Sequencing (NGS)

Current Method Description

Next-generation sequencing is performed to determine microsatellite instability (MSI) status and evaluate the presence of a mutation in targeted regions of the *ALK*, *APC*, *BAP1*, *BCOR*, *BRAF*, *CDKN2A*, *CTNNB1*, *DICER1*, *EED*, *EGFR*, *FGFR4*, *GNA11*, *GNA14*, *GNAQ*, *GNAS*, *H3-3A*, *H3-3B*, *KIT*, *MDM2*, *MED12*, *MYOD1*, *NF1*, *PDGFRA*, *PDGFRB*, *PTPRD*, *ROS1*, *SMARCB1*, *SUZ12*, *TERT-promoter*, *TP53*, and *TSC2* genes. RNA-based next-generation sequencing is performed to test for the presence of rearrangements involving targeted regions of 138 fusion. See [Targeted Genes and Methodology Details for MayoComplete Sarcoma Panels](#) and [Targeted Genes Fusions and Methodology Details for MayoComplete Sarcoma Panel](#) for details regarding the targeted gene regions evaluated by this test.(Unpublished Mayo method)

New Method Description

Next-generation sequencing (NGS) is performed to determine microsatellite instability status and evaluate the presence of a mutation in targeted regions of the *ALK*, *APC*, *BAP1*, *BCOR*, *BRAF*, *CDKN2A*, *CTNNB1*, *DICER1*, *EED*, *EGFR*, *FGFR4*, *GNA11*, *GNA14*, *GNAQ*, *GNAS*, *H3-3A*, *H3-3B*, *KIT*, *MDM2*, *MED12*, *MYOD1*, *NF1*, *PDGFRA*, *PDGFRB*, *PTPRD*, *ROS1*, *SMARCB1*, *SUZ12*, *TERT-promoter*, *TP53*, and *TSC2* genes. RNA-based NGS is performed to test for the presence of rearrangements involving 1445 genes, selected splice variants in *MET* and *EGFR* genes, and internal tandem duplications within exon 15 of the *BCOR* gene.

See [Targeted Genes and Methodology Details for MayoComplete Sarcoma Panels](#) and Targeted Fusion Genes for MayoComplete Sarcoma Panel for details regarding the targeted gene regions evaluated by this test genes.(Unpublished Mayo method)

Questions

Contact Melissa Tricker-Klar, Laboratory Resource Coordinator at 800-533-1710.

