

BRAF V600E MUTATION

Test Name	BRAF V600E MUTATION
Also Known As	BRAF Mutation
Clinical Utility and/or Limitations	BRAF is a component of the cytoplasmic RAS/RAF/MAPK signal transduction pathway, which mediates transcriptional protein regulation involving cellular proliferation. Signals from the extracellular EGFR receptor may activate several intracellular pathways, including RAS, AKT, and STAT. In the RAS pathway, BRAF is downstream from RAS, and mutations of BRAF are usually mutually exclusive of K-RAS mutations. An oncogenic mutation of BRAF at V600E in exon 15 comprises 80-85% of BRAF mutations, and has been described in a variety of cancers, including melanoma (70%), thyroid (up to 30%), ovarian (up to 30%), and colorectal carcinomas (up to 15%). BRAF mutations are associated with sporadic microsatellite instability-high (MSI-H) colorectal carcinoma, but not with hereditary non-polyposis colorectal carcinoma. In colorectal carcinoma, the presence of a BRAF mutation predicts a poorer response to anti-EGFR monoclonal antibody therapeutics such as cetuximab (ERBITUX®) and panitumumab (vectibix®).
Diagnosis Under Consideration	BRAF mutations are associated with sporadic microsatellite instability-high (MSI-H) colorectal carcinoma, but not with hereditary non-polyposis colorectal carcinoma.

Ordering Details

Test Code	5893-3
Assay Schedule	Monday - Friday ONLY
Turnaround Time	24 - 48 hrs
Preferred Specimen and Volume	Nondecalfied Paraffin Embedded Tissue (block) containing at least 2 square mm of tumor
Alternate Specimen and Volume	2 H&E and 40 micron shaving of paraffin block containing the above amount of tumor.

Specimen Handling Information

Specimen Storage	Room temperature: Indefinite , Refrigerated: Indefinite
Specimen Transport	Ship specimen ambient except during summer months, ship with ice pack to prevent damage from the heat.
Causes For Specimen Rejection	No Tumor in Block. No Patient Id and/or Surgical number on Specimen, Patient ID and/or Surgical number on specimen and Requisition doesn't match, Specimen without GenPath/BioReference requisition. Decalcified Tissue.

Billing Information

CPT Codes	83907 x 1:Deparaffinization, 83891 x 1:DNA extraction, 83898 x 1:PCR amplification, 83904 x 1:Mutation ID by sequencing, 83912 x 1:Interpretation and report
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