ARUP Laboratories
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*****Example Report*****

Patient Age/Gender: 67 years Female
Printed: 26-Jun-20 15:06:55

Procedure	Result	Units	Ref Interval	Accession	Collected	Received	Reported/ Verified
BRAF codon 600 Mutation Detection	**Positive *f**			20-178-900044	26-Jun-20 10:41:00	26-Jun-20 10:43:00	26-Jun-20 14:52:24
Block ID	NA			20-178-900044	26-Jun-20 10:41:00	26-Jun-20 10:43:00	26-Jun-20 14:52:24
Mismatch Repair by IHC, Result	Abnormal			20-178-900044	26-Jun-20 10:41:00	26-Jun-20 10:43:00	26-Jun-20 11:25:22
Mismatch Repair by IHC with MLH1	Abnormal			20-178-900044	26-Jun-20 10:41:00	26-Jun-20 10:43:00	26-Jun-20 11:25:22
Mismatch Repair by IHC with MSH2	Normal			20-178-900044	26-Jun-20 10:41:00	26-Jun-20 10:43:00	26-Jun-20 11:25:22
Mismatch Repair by IHC with MSH6	Normal			20-178-900044	26-Jun-20 10:41:00	26-Jun-20 10:43:00	26-Jun-20 11:25:22
Mismatch Repair by IHC with PMS2	Abnormal			20-178-900044	26-Jun-20 10:41:00	26-Jun-20 10:43:00	26-Jun-20 11:25:22
Client Case or Ref #	WH20-7890 A3			20-178-900044	26-Jun-20 10:41:00	26-Jun-20 10:43:00	26-Jun-20 11:25:22
MSI Tissue Source	Colon			20-178-900044	26-Jun-20 10:41:00	26-Jun-20 10:43:00	26-Jun-20 11:25:22

26-Jun-20 10:41:00 Mismatch Repair by IHC, Result
Abnormal immunohistochemical staining for mismatch repair proteins correlates well with the presence of microsatellite instability by PCR. The BRAF codon 600 mutation test (0051750) may be helpful in distinguishing sporadic from Lynch (HNPCC) associated colorectal cancers with abnormal MLH1 immunostaining. Controls worked appropriately.

This result has been reviewed and approved by Deepika Sirohi, M.D.

26-Jun-20 10:41:00 BRAF RFLX:

The tumor tested was identified and selected by a Board Certified AP/CP Pathologist.
26-Jun-20 10:41:00 BRAF codon 600 Mutation Detection:

A mutation in BRAF codon 600 was detected: c.1799T>A, p.V600E

This result has been reviewed and approved by Anna Matynia, M.D.

26-Jun-20 10:41:00 BRAF codon 600 Mutation Detection:
INTERPRETIVE INFORMATION: BRAF codon 600 Mutation Detection with Reflex to MLH1 Promoter Methylation

Presence of a BRAF c.1799T>A, p.Val600Glu (V600E) mutation in a microsatellite unstable colorectal carcinoma indicates that the tumor is probably sporadic and not associated with Lynch syndrome (HNPCC). However, if a BRAF mutation is not detected, the tumor may either be sporadic or Lynch syndrome associated. It should be noted that there have been rare reports of BRAF mutations in Lynch syndrome associated tumors, so the presence of a BRAF mutation does not completely exclude the possibility of Lynch syndrome.

Methodology:
DNA is isolated from microdissected tumor tissue and amplified for exon 15 of the BRAF gene. Mutation status is determined by pyrosequencing.

Limitations: Mutations in other locations within the BRAF gene or in other genes will not be detected.
Limit of detection: 10 percent mutant alleles.

Clinical Disclaimer: Results of this test must always be interpreted within the clinical context and other relevant data, and should not be used alone for a diagnosis of malignancy. This test is not intended to detect minimal residual disease.

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement B: aruplab.com/CS

26-Jun-20 10:41:00 Mismatch Repair by IHC, Result:
INTERPRETIVE INFORMATION: Mismatch Repair by Immunohistochemistry

Immunohistochemical staining for mismatch repair proteins can be used as a surrogate test for microsatellite instability as measured by PCR. Normal results correlate well with the absence of microsatellite instability, while abnormal results correlate well with the presence of microsatellite instability. The immunohistochemical staining pattern can also be used as a guide for the subsequent germline evaluation of mismatch repair genes (refer to Lynch Syndrome (HNPCC) testing algorithm at ARUPconsult.com).

Genetic counseling is recommended for the interpretation of all results.

Assay is performed on paraffin-embedded, formalin fixed tissue. Antibody clone for MLH1 is ES05, MSH2 is FE11, MSH6 is EP49, and PMS2 is EP51. Detection system is a proprietary polymeric HRP.

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