

### Test Description

NRAS mutation test is an *in vitro* diagnostic test for the qualitative detection of mutations in codons 12, 13, 59, 61, 117 and 146 of NRAS oncogene.

### Patient Demographic

**Name:** Zabiullah Mohammadi  
**Sex:** Male  
**Date of Birth/Age:** 43 Years  
**Disease:** Metastatic carcinoma rectum to liver

### Clinician

**Clinician Name:** Dr Archit Pandit  
**Medical Facility:** Max Hospital  
**Pathologist:** Not Provided

### Specimen

**Site:** Hepatectomy  
**Sample Type:** FFPE block SB – 4045/19  
**Date of Collection:** 14-11-2019  
**Date of Booking:** 14-11-2019

## NRAS Mutation Analysis

# Result

# No Mutation Detected in NRAS

### GENOMIC FINDINGS

No mutation detected

### INTERPRETATION

**No Mutation detected in NRAS codons 12, 13, 59, 61, 117 and 146.**

### METHODOLOGY

The NRAS Mutation Test, performed on the Biocartis Idylla™ system, is an *in vitro* diagnostic test for the qualitative detection of 18 mutations (G12C, G12S, G12D, G12A, G12V, G13D, G13V, G13R, A59T, Q61H/Q61H, Q61K/R/L, K117N/K117N and A146T/V) in codons 12, 13, 59, 61, 117 and 146 of the NRAS gene. Formalin-fixed paraffin-embedded (FFPE) human cancer tissue is lysed liberate DNA for subsequent real-time PCR amplification using allele specific primers. Two sample processing controls (SPC) are amplified simultaneously i.e. (1) a conserved region of the NRAS gene (referred to as NRAS-Total) and (2) a conserved region of the BRAF gene. The presence of a mutant genotype is determined by calculating the difference between the NRAS Sample Processing Control Cq and the Cq obtained for the NRAS mutant signal(s).

The analytic sensitivity of this assay has been determined at  $\leq 5\%$

### REFERENCES

1. Allegra et al. J Clin Oncol (2016) 34:179-85
2. Boleij et al. BMC Cancer (2016) 16:825.



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Date