Test Description

MSI testing is used for Hereditary Cancer screening (Hereditary Non-Polyposis Colorectal Cancer -HNPCC or Lynch syndrome); As a biomarker (Prognostic and predictive biomarker for the response of Immunotherapy)

Clinician

Clinician Name: Dr Amit Verma
Medical Facility: Max Hospital
Pathologist: Not Provided

Patient Demographic

Name: Tejram Mathur
Sex: Male
Date of Birth/Age: 65 years
Disease: Metastatic Carcinoma Colon

Specimen

Site: Rectal Hemicolectomy
Sample Type: FFPE block SB – 2598/18 O
Date of Collection: 07-11-2019
Date of Booking: 09-11-2019

iMSI Rapid™ Assay

Result — Microsatellite – High (MSI-H)

BIOMARKER FINDINGS

ACVR2A	Mutation detected
BTBD7	No mutation detected
DIDO1	Mutation detected
MRE11	No mutation detected
RYR3	No mutation detected
SEC13A	No mutation detected
SULF2	No mutation detected

INTERPRETATION

Mutations are detected in 2 of the 7 markers

*MSS <2 of the 7 markers demonstrate instability

#MSI-H ≥2 of the 7 markers demonstrate instability

*Microsatellite stable

Microsatellite Instability-High

For valid batch test results specific controls are being run with every batch.

METHODOLOGY

Multiplex detection of seven mononucleotide repeats using molecular beacon probe-based polymerase chain reaction followed by high resolution melt-curve analysis. The assay uses seven novel biomarkers *ACVR2A*, *BTBD7*, *DIDO1*, *MRE11*, *RYR3*, *SEC31A* and *SULF2* as this set of biomarkers is stable over different cancer types and ethnicities and show high performance than other known assays like *Bethesda Panel.* This test is carried out on Idylla platform using the MSI/1.0 Cartridge based kit which is CE IVD approved.

REFERENCES

Zhao et al. (2014) eLife 3: e02725, 1-26.
De Craene B. et al. (2018) ASCO Abstract #e15639.
Zhao et al. (2018) ASCO Abstract #e15654

November 11, 2019

Dr Gulshan Yadav, MD, Consultant Pathology Date