**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)

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| **Patient Demographic** | |
| **Name**: Iman Neamah Hussein | |
| **Sex**: Female | |
| **Date of Birth/Age**: 54 years | |
| **Disease**: Undifferentiated Pleomorphic Sarcoma | |
| **Clinician** |
| Clinician Name: Dr Amit Verma |
| Medical Facility: Max Hospital |
| Pathologist: Not Provided |
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| **Specimen** |
| **Site**: Retroperitoneal Mass, Needle Biopsy |
| **Sample Type**: FFPE block B/2637/19 |
| **Date of Collection**: 06-07-2019 |
| **Date of Booking**: 07-07-2019 |

**iMSI RapidTM Assay**

**Result**

**Microsatellite - High (MSI-H)**

BIOMARKER FINDINGS INTERPRETATION

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| *ACVR2A* | No mutation detected |
| *BTBD7* | No mutation detected |  | **No mutations are detected in any 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.* |
| *DIDO1* | No mutation detected |  |
| *MRE11* | No mutation detected |  |
| *RYR3* | No mutation detected |  |
| *SEC13A* | No mutation detected |  |
| *SULF2* | No mutation detected |  |

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| 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 |
|  | July 7, 2019 |
|  |  |
|  | Dr Gulshan Yadav, MD, Consultant Pathology Date |