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## REPORT

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### Sample Information

<b>Name:</b>	XXXXXXXX XXXXXX	<b>Report No:</b>	24002783GR
<b>ID/Medical ID:</b>	TEST 3/11/2023	<b>Date Received:</b>	01/03/2024
<b>Date Of Birth:</b>	01/01/1956	<b>Date Of Report:</b>	01/03/2024
<b>Histology No:</b>	xxxxx		
<b>Patient Location:</b>	XX/XXX		

### Sample Details

<b>Type of sample #1:</b>	PARAFFIN EMBEDDED TISSUE	<b>Code of sample #1:</b>	xxx
<b>Barcode of sample #1:</b>	24002783GR-1		

### Analysis of Microsatellite Instability (MSI)\*

Cancer-associated instabilities at microsatellite locations throughout the genome have been shown to be predictive of response to immunotherapy treatment. A Microsatellite Instability High (MSI-H) status can result when the DNA Mismatch Repair (MMR) system fails to work appropriately. Genomic DNA was extracted from the tumor tissue after microscopic observation and macro-dissection. A nextgeneration sequencing based assay using 76 markers was used to assess Microsatellite Instability (MSI) status in tumor-only and tumor-normal samples utilizing Ion Ampliseq technology. Sequencing was carried out using the Next Generation Sequencing platform Ion Gene Studio S5 Prime System (Thermo Fisher Scientific). The test provides results for individual microsatellites and generates an MSI score. A sample is considered positive if the MSI score is >30.

### Results

**Sample acceptable for analysis**

**In conclusion MSI was observed (MSI score=...). The sample therefore is classified as microsatellite-high (MSI-H). Based on recent literature for all patients with MSI-H phenotype, regardless of cancer type, laboratory genetic assessment of Lynch Syndrome is recommended.**

Macrodissection of the cancer tissue was performed.

Scientific Director  
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Molecular Biologist

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**References:**

1. Hiroyuki Yamamoto, Kohzoh I. Microsatellite instability: an update. Archives of Toxicology June 2015, Volume 89, Issue 6, pp 899921.
2. [http://cancerres.aacrjournals.org/content/79/13\\_Supplement/3492](http://cancerres.aacrjournals.org/content/79/13_Supplement/3492).
3. Russell Bonneville et al. Landscape of Microsatellite Instability Across 39 Cancer Types. JCO Precision Oncology 2017.

**Note:** The method used cannot detect mutations carried in fewer than 10% of the cells in the sample. In conclusion, there is a chance the sample has MSI which is not detectable with the described method.

**\*\*\*Note :** Each analysis has an internal error probability of 0,5-1%. This is due to rare events and factors involved in the production and analysis of specimens.