



LABORATORY REPORT

Example Client, XYZ123
1234 Warde Road
Ann Arbor MI 48108

EXAMPLE, REPORT W
WX0000003826 F 12/05/1988 34 Y

Referral Testing

Collected: 09/14/2023 15:26 Received: 09/14/2023 15:26

Test Name Result Flag Ref-Ranges Units Site

Microsatellite Instability, Tumor

Result Summary SEE BELOW MMRL

RESULT: MSI-H (Microsatellite Instability-High)

Result SEE BELOW MMRL

Provided diagnosis: endometrial adenocarcinoma
Positive (instability observed in 7 of 7 informative markers)

Interpretation SEE BELOW MMRL

High levels of microsatellite instability (MSI-H) are indicative of defective DNA mismatch repair function within the tumor.

THERAPEUTIC IMPLICATIONS
Current data suggest that advanced stage solid tumors with defective DNA mismatch repair (MSI-H) are more likely to respond to treatment with immunotherapies such as anti-PD-1 therapies (Science. 2017 Jul 28;357(6349):409-413 (PMID 28596308); J Clin Oncol. 2018 Jan 20;JCO2017769901 (PMID 29355075)).

HEREDITARY IMPLICATIONS
These results increase the risk that this individual has Lynch syndrome. However, MSI testing does not distinguish between a somatic (not heritable) and a germline (heritable) defect in one of the DNA mismatch repair genes, nor does it provide information as to which gene might be involved. The use of immunohistochemistry (IHC / MMR Protein, IHCO Only, tumor), followed by germline mutational analysis, can further evaluate the possibility of Lynch syndrome in this individual. A genetic consultation may be of benefit.

ADDITIONAL INFORMATION
Consideration of these results, in light of other clinical information, may aid in clinical management decisions for this patient.

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED



LABORATORY REPORT

Example Client, XYZ123
1234 Warde Road
Ann Arbor MI 48108

EXAMPLE, REPORT W
WX0000003826 F 12/05/1988 34 Y

Referral Testing

Collected: 09/14/2023 15:26 Received: 09/14/2023 15:26

Test Name Result Flag Ref-Ranges Units Site

Of note, the literature suggests that MSI analysis on neoadjuvant chemoradiated tumor specimens may influence MSI status and lead to an erroneous interpretation of results (Int J Radiat Oncol Biol Phys. 2007 68(5):1584).

These data should be interpreted in the context of the histopathologic findings. A surgical pathology consult may be ordered separately. If immunohistochemistry (IHC) for the mismatch repair proteins was also ordered on this specimen, the results will be reported separately under test code IHC (IHC / MMR Protein, IHC Only, Tumor). For questions regarding the interpretation of IHC and MSI results, please contact the Genomics Laboratory at 1-800-533-1710.

-----ADDITIONAL INFORMATION-----

Microscopic examination was performed by a pathologist to identify areas of normal and tumor for enrichment by macrodissection. A PCR-based assay is used to test for tumor microsatellite instability (TMSI) with the use of 7 mononucleotide repeat markers (ACVR2A, BTBD7, DIDO1, MRE11, RYR3, SEC31A, and SULF2). The tumor tissue is classified as MSS (instability detected in 0 or 1 out of 7 markers), or MSI-H (instability in 2 or more of 7 markers tested). Due to the sensitivity of the method being used, microsatellite instability cannot be reliably detected in colorectal samples containing less than 20% tumor DNA or samples from other tumors containing less than 40% tumor DNA. Samples are routinely macrodissected to enrich for tumor cells, with colorectal samples less than 20% and other tumor types less than 40% rejected from further testing. Test results should be interpreted in the context of clinical findings, family history, and other laboratory data. If results obtained do not match other clinical or laboratory findings, please contact the laboratory for possible interpretation. Misinterpretation of results may occur if the information provided is inaccurate or incomplete.

This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration.

Table with 3 columns: Specimen Source, Tissue, Tumor, and MMRL. Row 1: Specimen Source, Tissue, Tumor, MMRL. Row 2: Tissue ID, 12-34-567-89, MMRL.

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED



LABORATORY REPORT

Example Client, XYZ123
1234 Warde Road
Ann Arbor MI 48108

EXAMPLE, REPORT W
WX0000003826 F 12/05/1988 34 Y

Referral Testing

Collected: 09/14/2023 15:26 Received: 09/14/2023 15:26

<u>Test Name</u>	<u>Result</u>	<u>Flag</u>	<u>Ref-Ranges</u>	<u>Units</u>	<u>Site</u>
Release By	SEE BELOW				MMRL

RESULT: Kandelaria M. Rumilla, M.D.

Test Performed by:
Mayo Clinic Laboratories - Rochester Main Campus
200 First Street SW, Rochester, MN 55905
Lab Director: William G. Morice M.D. Ph.D.; CLIA# 24D0404292

Performing Site:
MMRL: MAYO MEDICAL REFERENCE LAB 3050 Superior Drive NW Rochester MN 55901

Reported Date: 2023.09.14 15:29 TMSI

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED

F314000017 Ordered By: KAJAL SITWALA, MD, PhD
WX0000003826 WX00000000002353
Printed D&T: 09/14/23 15:30

Kajal V. Sitwala, MD, PhD - Medical Director
Form: MM RL1
PAGE 3 OF 3