MAYO CLINIC LABORATORIES

Test Definition: METSP

MET (SP44), Semi-Quantitative Immunohistochemistry, Manual

Overview

Useful For
Aiding in the identification of normal and neoplastic MET expressing cells

Method Name
Immunohistochemistry (IHC)

NY State Available
Yes

Specimen

Specimen Type
Special

Shipping Instructions
Attach the green "Attention Pathology" address label (T498) to the outside of the transport container before putting into the courier mailer.

Necessary Information
A pathology/diagnostic report and a brief history are required.

Specimen Required
Specimen Type: Tissue
Supplies: Pathology Packaging Kit (T554)
Submit:
Formalin-fixed, paraffin-embedded tissue block
OR
3 Unstained glass, "positively charged" slides with 4-microns formalin-fixed, paraffin-embedded tissue
Collection Instructions: Store slides at 2 to 8 degrees C and send within 45 days.
Additional Information:
1. One slide will be stained with hematoxylin and eosin and returned.
2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Forms
If not ordering electronically, complete, print, and send a Immunohistochemical (IHC)/In Situ Hybridization (ISH) Stains Request (T763) with the specimen.

Reject Due To

Decalcified paraffin embedded tissue	Reject
Wet/frozen tissue	Reject
Cytology smears	Reject
Noncharged slides	Reject
ProbeOn slides	Reject
Snowcoat slides	Reject
Nonformalin fixed tissue, including CytoLyt, SurePath, alcohol-formalin-acetic acid (AFA), 95% ethanol, PREFER and zinc formalin fixatives	Reject
Nonparaffin embedded tissue	Reject
Broken or cracked unstained slides	Reject
Broken or cracked stained slides that cannot be repaired	Reject

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container

Special	Ambient (preferred)		
	Refrigerated		

Clinical & Interpretive

Clinical Information

MET is a cell surface receptor tyrosine kinase that regulates cellular proliferation, migration, and differentiation during development. Increased expression of MET has been shown to correlate with poor prognosis in non-small cell carcinomas of the lung and tumors of other sites. Immunohistochemistry evaluation using the MET (SP44) antibody can aid in identifying non-squamous non-small cell lung cancer patients who may be eligible for MET targeted therapies.

Reference Values

An interpretive report will be provided.

Interpretation

Results are reported as percent of tumor cells with 3+ MET protein expression.

The US Food and Drug Administration approval for treatment of non-small cell lung cancer with Telisotuzumab vedotin-tllv is for tumors with strong (3+) MET expression in at least 50% of the tumor cells.

Cautions

This test has been validated for non-decalcified paraffin-embedded tissue specimens fixed in 10% neutral buffered formalin at Mayo Clinic in Rochester, Minnesota. Specimens are recommended to be placed in formalin within 1 hour of acquisition and fixed between 6 hours and 72 hours. This assay has not been validated on tissue or cellblocks subjected to alternative fixatives or decalcification.

Age of a cut paraffin section can affect immunoreactivity. Slides not stored at 2 to 8 degrees C or stored at this temperature but not received for testing within 45 days of being made may have diminished antigenicity.

The charge of glass slides can be affected by environmental factors and subsequently may alter slide staining. Sending unsuitable glass slides can result in inconsistent staining due to poor slide surface chemistry.

Best practices for storage of positively charged slides:
-Minimize time slides are stored after being unpackaged
-Limit exposure to high humidity and heat
-Minimize exposure to plastics

Broken or cracked unstained slides are not compatible with the instrumentation used in our performing laboratories and will be rejected. Additional material may be requested.

Attempts will be made to repair broken or cracked stained slides; however, if they are unable to be repaired (ie, shattered in transit), they will be rejected and discarded due to safety concerns.

Clinical Reference

1. Wang M, Liang L, Lei X, et al. Evaluation of cMET aberration by immunohistochemistry and fluorescence in situ hybridization (FISH) in triple negative breast cancers. Ann Diagn Pathol. 2018;35:69-76. doi:10.1016/j.anndiagpath.2018.04.004
2. Rossi G, Ragazzi M, Tamagnini I, et al. Does immunohistochemistry represent a robust alternative technique in determining drugable predictive gene alterations in non-small cell lung cancer? Curr Drug Targets. 2017;18(1):13-26. doi:10.2174/1389450116666150330114441
3. Pyo JS, Kang G, Cho WJ, Choi SB. Clinicopathological significance and concordance analysis of c-MET immunohistochemistry in non-small cell lung cancers: A meta-analysis. Pathol Res Pract. 2016;212(8):710-716. doi:10.1016/j.prp.2016.05.006
4. Magaki S, Hojat SA, Wei B, So A, Yong WH. An introduction to the performance of Immunohistochemistry. Methods Mol Biol. 2019;1897:289-298. doi:10.1007/978-1-4939-8935-5_25

Performance

Method Description

Immunohistochemical staining and detection of MET (SP44) is performed in formalin-fixed, paraffin-embedded tissue sections using the VENTANA MET (SP44) RxDx Assay. The 4-micron tissue sections are deparaffinized, subjected to heat-induced antigen retrieval and peroxidase inhibitor, incubated with a rabbit monoclonal antibody, and visualized using a proprietary kit detection system. Sections are counterstained with hematoxylin and post-counterstained with bluing.(Package insert: VENTANA MET (SP44) RxDx Assay. Ventana Medical Systems, Inc.; 1018335US Rev A, 05/14/2025)

Results are examined microscopically by the consulting anatomic pathologist and interpreted using the manufacturer-provided interpretation guide.(Instruction manual: VENTANA MET (SP44) RxDx Assay Interpretation Guide for Non-Squamous Non-Small Cell Lung Cancer. Ventana Medical Systems, Inc.; 1018336US Rev A, 05/14/2025)

PDF Report

No

Day(s) Performed

Monday through Friday

Report Available

5 to 7 days

Specimen Retention Time

Until reported

Performing Laboratory Location

Mayo Clinic Laboratories - Rochester Main Campus

Fees & Codes

Fees

- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact Customer Service.

Test Classification

This test has been modified from the manufacturer's instructions. Its performance characteristics were determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the US Food and Drug Administration.

CPT Code Information

88360

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
METSP	MET (SP44), SemiQuant IHC, Manual	In Process

Result ID	Test Result Name	Result LOINC® Value
623180	Interpretation	59465-5
623181	Participated in the Interpretation	No LOINC Needed
623182	Report electronically signed by	19139-5
623183	Material Received	81178-6
623184	Disclaimer	62364-5
623185	Case Number	80398-1