MAYO CLINIC LABORATORIES

Test Definition: NECT4

Nectin-4, Semi-Quantitative Immunohistochemistry, Manual

Overview

Useful For
Identifying nectin-4 overexpression in bladder cancer and other cancers

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
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
Nonformalin fixed tissue including alcohol-formalin-acetic acid (AFA), 95% ethanol, PREFER fixatives or zinc formalin	Reject
Nonparaffin embedded tissue	Reject
Noncharged slides	Reject
ProbeOn slides	Reject
Snowcoat slides	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

Nectin-4, also known as poliovirus receptor-like 4 (PVRL4), is overexpressed in many cancers, in particular bladder cancer. An antibody drug conjugate, enfortumab vedotin, targets the cell surface protein nectin-4. Some studies suggest that tumors with high expression of nectin-4 are more likely responsive to drug therapy.

Reference Values

An interpretive report will be provided.

Interpretation

Nectin-4 is a membrane protein and immunohistochemical positivity is characterized by a membrane pattern of staining. Results are reported as percent positive cells and intensity of staining, and H score is provided.

This result should be interpreted in the appropriate clinical context.

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 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. Stability thresholds vary widely among published literature and are antigen dependent. Best practice is for paraffin sections to be cut within 6 weeks.

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. Heath EI, Rosenberg JE. The biology and rationale of targeting nectin-4 in urothelial carcinoma. Nat Rev Urol. 2021;18(2):93-103
2. Bouleftour W, Guillot A, Magne N. The anti-nectin 4: A promising tumor cells target. A systematic review. Mol Cancer Ther. 2022;21(4):493-501

3. Takano A, Ishikawa N, Nishino R, et al. Identification of nectin-4 oncoprotein as a diagnostic and therapeutic target for lung cancer. Cancer Res. 2009;69(16):6694-6703

Performance

Method Description
Immunohistochemistry on sections of paraffin-embedded tissue.(Unpublished Mayo method)

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 was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. It 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
NECT4	Nectin-4, SemiQuant IHC, Manual	111554-2

Test Definition: NECT4

Nectin-4, Semi-Quantitative Immunohistochemistry, Manual

Result ID	Test Result Name	Result LOINC® Value
622261	Interpretation	59465-5
622262	Participated in the Interpretation	No LOINC Needed
622263	Report electronically signed by	19139-5
622264	Material Received	81178-6
622265	Disclaimer	62364-5
622266	Case Number	80398-1