

Overview

Useful For

Diagnosis of small cell lung carcinoma (SCLC), large cell neuroendocrine carcinoma (LCNEC), amongst other tumors

Method Name

Immunohistochemistry (IHC)

NY State Available

Yes

Specimen

Specimen Type

Special

Shipping Instructions

Attach the green pathology address label included in the kit to the outside of the transport container.

Necessary Information

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

Specimen Required

Specimen Type: Tissue

Supplies:

-Pathology Packaging Kit (T554)

-Immunostain Technical Only Envelope (T693)

Container/Tube: Immunostain Technical Only Envelope

Collection Instructions: Formalin-fixed, paraffin-embedded tissue block; or 3 unstained glass, positively charged slides with 4-microns, formalin-fixed, paraffin-embedded tissue

Additional Information: One slide will be stained with hematoxylin and eosin and returned.

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

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Wet/frozen tissue Cytology smears Nonformalin fixed tissue Nonparaffin embedded tissue Noncharged slides ProbeOn slides	Reject
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Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Special	Ambient (preferred)		
	Refrigerated		

Clinical and Interpretive

Clinical Information

Delta-like 3 protein (DLL3) is an atypical Notch ligand induced by the neuroendocrine transcription factor, ASCL-1. DLL3 is expressed on the cell membrane and in the cytoplasm of tumor cells.

Interpretation

Positivity for this test will require 50% or more of the tumor cells within a specimen to express delta-like 3 protein with an intensity ranging from 1 to 3+.

Cautions

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 fresh.

Clinical Reference

- Saunders LR, Bankovich AJ, Anderson WC, et al: A DLL3-targeted antibody-drug conjugate eradicates high-grade pulmonary neuroendocrine tumor-initiating cells in vivo. *Sci Transl Med.* 2015 Aug;7(302):302ra136
- Xie H, Boland JM, Maleszewski JJ, et al: Expression of delta-like protein 3 is reproducibly present in a subset of small cell lung carcinomas and pulmonary carcinoid tumors. *Lung Cancer.* 2019 Sep;135:73-79. doi: 10.1016/j.lungcan.2019.07.016
- Xie H, Kaye FJ, Isse K, et al: Delta-like protein 3 expression and targeting in merkel cell carcinoma. *Oncologist.* 2020 Sep 1;10:810-817. doi: 10.1634/theoncologist.2019-0877

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

Rochester

Fees and 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 Regional Manager. 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. 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
DLL3	DLL3(SP347)Semi-Quant IHC,Manual	In Process

Result ID	Test Result Name	Result LOINC Value
603333	Interpretation	59465-5
603334	Participated in the Interpretation	No LOINC Needed
603335	Report electronically signed by	19139-5
603336	Material Received	81178-6
603337	Disclaimer	62364-5
603338	Case Number	80398-1