



Test Catalog

Diagnostic. Prognostic. Predictive. Predisposition.





NUT

Alternative Name

Nuclear protein in testis

Methodology

Immunohistochemistry (IHC)

Test Description

Expression of nuclear protein in testis (NUT) is generally confined to the germ cells of the testis and ovary. NUT midline carcinomas are aggressive tumors with non-diagnostic morphology that overlaps with many other poorly differentiated tumors, but are characterized by rearrangement of the NUTM1 (NUT) gene at chromosome 15q14 with BRD4/3 (and rarely NSD3, ZNF532 or ZNF592), which causes NUT protein overexpression. IHC staining with NUT antibody may serve as a diagnostic alternative to FISH or molecular confirmation of 15q14 rearrangement. However, NUT overexpression by IHC may also be seen in other diseases NUTM1 rearrangement, such as porocarcinoma with YAP1-NUTM1 gene fusion (PMID: 32436169), so a diagnosis of NUT midline carcinoma should not be based on NUT IHC positivity alone.

Specimen Requirements

- A formalin-fixed, paraffin-embedded (FFPE) tissue block is preferred specimen type or
- One (1) unbaked, unstained slide for H&E staining (required) and two to three (2-3) positively charged unstained slides (all cut at 4-5 microns) for each test/antibody ordered
- Block and slide identifiers should be clearly written and match exactly with the specimen ID and specimen labeling as noted on the requisition.

Storage & Transportation

Use cold pack for transport. Make sure cold pack is not in direct contact with specimen.

CPT Code(s)*

88342x1 or 88341x1

New York Approved

Yes

Level of Service

Stain Only

Turnaround Time

24 hours

References

1. Agaimy A, Tögel L, Haller F, Zenk J, Hornung J, Märkl B. YAP1-NUTM1 Gene Fusion in Porocarcinoma of the External Auditory Canal. *Head Neck Pathol.* 2020;14(4):982-990.
2. Napolitano M, Venturelli M, Molinaro E, Toss A. NUT midline carcinoma of the head and neck: current perspectives. *Onco Targets Ther.* 2019;12:3235-3244.
3. Park HS, Bae YS, Yoon SO, et al. Usefulness of Nuclear Protein in Testis (NUT) Immunohistochemistry in the Cytodiagnosis of NUT Midline Carcinoma: A Brief Case Report. *Korean J Pathol.* 2014;48(4):335-338.

*The CPT codes provided with our test descriptions are based on AMA guidelines and are for informational purposes only. Correct CPT coding is the sole responsibility of the billing party.

Please direct any questions regarding coding to the payor being billed.

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