



Test Catalog

Diagnostic. Prognostic. Predictive. Predisposition.



1p/19q Deletions for Glioma

Alternative Name

1/19 Co-deletion, 1p/19q Tricolor Deletion

Methodology

FISH

Test Description

Probes: 1p36/1p12/1q25 | 19q13/19q11q12/19p13

Disease(s): Oligodendroglioma

This assay employs one centromeric probe and two distal probes per chromosome to detect and differentiate whole-arm vs partial 1p and 19q deletions, and to detect polysomy.

Clinical Significance

Testing for 1p and 19q deletions in glial brain tumors, specifically oligodendrogliomas, has diagnostic and prognostic value. Whole-arm deletions of chromosomes 1p and 19q (with concurrent IDH1 or IDH2 mutation) are diagnostic for oligodendroglioma according to WHO classification. Co-deletion of both the 1p and 19q regions in adult oligodendroglioma patients is associated with improved response and longer survival in patients receiving radiation and/or chemotherapy. Results can help distinguish the oligodendroglioma subtype of diffuse gliomas from astrocytomas and from other tumor types with similar morphology such as clear cell ependyomas, central or extraventricular neurocytomas, and dysembryoplastic neuroepithelial tumors (DNETs). Partial deletions may be seen in high-grade glioblastomas. Polysomy in the presence of whole-arm co-deletions may occur in anaplastic oligodendroglioma.

Specimen Requirements

- **Paraffin Block:** Send paraffin block. Also send circled H&E slide for tech-only (required).
- **Cut Slides:** Send 4 unstained slides cut at 4-5 microns plus H&E slide (required). Circle H&E slide for tech-only.

Storage & Transportation

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

CPT Code(s)*

88374x2 automated or 88377x2 manual. Codes may differ if manual analysis is performed.

New York Approved

Yes

Level of Service

Technical, Global

Turnaround Time

3-5 days

References

1. Louis DN, Perry A, Reifenberger G, et al. The 2016 World Health Organization Classification of Tumors of the Central Nervous System: a summary. *Acta Neuropathol*. DOI 10.1007/s00401-016-1545-1 Published online May 9, 2016

*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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