



To: UPHS Physicians and Staff
 From: The Division of Precision and Computational Diagnostics (PCD)
 Vivianna Van Deerlin, M.D., Ph.D., Director, Molecular Pathology Laboratory

Date: March 9, 2026

Re: **METHOD CHANGE: *IDH1* and *IDH2* Variant Analysis**

The testing methodology for standalone *IDH1* and *IDH2* variant testing in the HUP Molecular Pathology Laboratory is changing in March. Testing for gliomas, chondrosarcomas, and cholangiocarcinomas will now be performed on the Idylla™ platform. This change does not apply to *IDH1* and *IDH2* variant testing for hematologic malignancy specimens, which is now being performed using the new Hematological Expedited Sequencing (HEXS) panel.

***IDH1/2* Analysis**

- **Methodology:** Polymerase Chain Reaction (IDYLLA™ *IDH1-2* Mutation Assay)
- **Detection:** This assay detects the following variants:
 - *IDH1* codon R132: R132C, R132H, R132G, R132S, R132L
 - *IDH2* codon R140: R140Q, R140L, R140G, R140W
 - *IDH2* codon R172: R172K, R172M, R172G, R172S, R172W
- **Reporting:** Positive or Not Detected. Results are reported at the codon level; the specific nucleotide change and corresponding amino acid change are not distinguished.
- **Limitations:** This is a qualitative assay and does not report variant allele frequency. This assay may detect variants not listed above if contained within the same codon.

Testing Information

	Test Name
PennChart Ordering:	Pathology Outside Consult (APCONS) [PxCode SGPATH14] Special Studies: Molecular: <i>IDH1/2</i> PCR
Turnaround Time:	5 days
Acceptable Specimen:	Formalin-fixed paraffin embedded (FFPE) tissue or extracted DNA

For more information call the Molecular Pathology Laboratory (215-615-3094) on weekdays during regular business hours. For information on ordering and specimen requirements, kindly consult the [Lab Test Services Guide](#). Questions related to ordering can be directed to the Molecular Anatomic Pathology (MAP) service at Pathway@penntest.com.

References

1. World Health Organization Classification of Tumours of the Central Nervous System. 5th ed. Lyon: International Agency for Research on Cancer; 2021
2. Solomon, J.P., Munoz-Zuluaga, C., Slocum, C. et al. Evaluation of the rapid Idylla *IDH1-2* mutation assay in FFPE glioma samples. *Diagn Pathol* 19, 70 (2024). <https://doi.org/10.1186/s13000-024-01492-3>
3. Molecular Biomarker Testing for the Diagnosis of Diffuse Gliomas: Algorithm (CAP)