

## LABORATORY REPORT

Example Client, XYZ123 1234 Warde Road Ann Arbor MI 48108 **EXAMPLE, REPORT W** 

WX0000003826 F 12/05/1988 34 Y

Referral Testing

Collected: 09/26/2023 08:10 Received: 09/26/2023 08:10

Test Name Result Flag Ref-Ranges Units Site

## IDH1 and IDH2 Mutation Analysis, exon 4

IDH1 and IDH2 Mutation Results Not Detected ARRL

A mutation was not detected in the IDH1 (codon R132) or IDH2 (codons R140 or R172) genes. This does not exclude the possibility of a mutation below the limit of detection for this assay.

This result has been reviewed and approved by Kristin Karner,  ${\tt M.D.}$ 

BACKGROUND INFORMATION: IDH1 and IDH2 Mutation Results

CHARACTERISTICS: This test is designed to detect mutations in exon 4 of the IDH1 and IDH2 genes at "hotspots" R132 of IDH1 and R140 and R172 of IDH2 that are frequently present in gliomas and in a subset of cases of acute myeloid leukemia. IDH1/2 mutations in gliomas are generally associated with a better prognosis. In acute myeloid leukemia, the prognostic significance of IDH1 mutations is context dependent. IDH1 mutations appear to be associated with worse outcome in patients without FLT3-ITD mutations (see J Clin Oncol 2010. 28:3636 and Blood 2010. 116:2779). In acute myeloid leukemia patients with IDH2 abnormalities, IDH2 R140 mutations appear to be associated with better outcome while IDH2 R172 mutations appear associated with worse outcome (see Blood 2011. 118:409).

METHODOLOGY: DNA is isolated from FFPE tissue, blood, or bone marrow. The DNA is amplified for IDH1 and IDH2 covering exon 4 of both genes including the important residues R132 (IDH1), R140 (IDH2) and R172 (IDH2). Sanger sequencing is then performed to detect mutations. Only mutations in R132 (IDH1), R140 and R172 (IDH2) are reported.

LIMITATIONS: Mutations in other locations within the IDH1 and IDH2 genes or in other genes will not be detected. The limit of detection for this test is 20 percent mutant allele. Results of this test must always be interpreted within the clinical context and with other relevant data, and should not be used alone for a diagnosis of malignancy. This test is not intended to detect minimal residual disease.

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement B: aruplab.com/CS Performed by ARUP Laboratories,

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL,  $\,$  . - NOT TESTED

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Kajal V. Sitwala, MD, PhD - Medical Director Form: MM RL1 PAGE 1 OF 2



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500 Chipeta Way, SLC,UT 84108 800-522-2787

www.aruplab.com, Julio Delgado, MD, Lab. Director

IDH 1-2 Source Whole Blood ARRL

Performing Site:

ARRL: ARUP REFERENCE LAB 500 Chipeta Way Salt Lake City UT 841081221

**Reported Date:** 2023.09.26 8:10 IDHMA

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