



LABORATORY REPORT

Example Client, XYZ123
1234 Warde Road
Ann Arbor MI 48108

EXAMPLE, REPORT W
WX0000003827 M 07/08/1978 45 Y

Referral Testing

Collected: 08/17/2023 14:52 Received: 08/17/2023 14:52

Table with 6 columns: Test Name, Result, Flag, Ref-Ranges, Units, Site. Row 1: Alpha-globin Gene Del or Dup, See Below, QCRL

RESULT: NO DELETION/DUPLICATION DETECTED (4 ALPHA-GLOBIN GENES DETECTED)

INTERPRETATION: DNA testing indicates that this individual has four intact alpha-globin genes. No alpha-globin gene rearrangements (deletions or duplications) were detected. This test cannot rule out the possibility of a point mutation in the alpha-globin gene cluster. If clinical and other laboratory findings are inconsistent with this result, consider alpha-globin gene sequencing.

Alpha-globin is an essential component of the hemoglobin tetramer, beginning in the early stages of embryonic development. Deletion mutations involving one or both of the alpha-globin genes (designated HBA1 (alpha-1) and HBA2 (alpha-2)) in the alpha-globin gene cluster (located on chromosome 16p13) lead to reduced production of alpha-globin chains, and are the major cause of alpha-thalassemia. The severity of symptoms is dependent on the number of functional alpha-globin genes remaining.

In this assay, multiplex-polymerase chain reaction (PCR) amplification of fragments specific for the 5'-end, middle section, and 3'-end of the alpha1- and alpha2-globin genes is carried out in the presence of fluorescently-labeled primers. In addition, fragments representing the HS40/locus control region (LCR), the alpha-globin pseudogene, as well 3 non-alpha globin fragments used as internal controls, are co-amplified. Amplification products are analyzed on an automated capillary DNA sequencer.

This assay cannot detect single nucleotide substitutions and small insertion/deletion mutations in the alpha-globin gene cluster. Since genetic variation and other factors can affect the accuracy of direct mutation testing, the results of this testing should always be interpreted in light of clinical and familial data. For assistance with the interpretation of the results, please contact your local Quest Diagnostics genetic counselor or call 1-866-GENEINFO (436-3463).

This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute San Juan Capistrano. It has not been cleared or approved by FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

Test Performed at: Quest Diagnostics Nichols Institute

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



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Table with 6 columns: Test Name, Result, Flag, Ref-Ranges, Units, Site. Row 1: 33608 Ortega Highway San Juan Capistrano, CA 92675-2042, I Maramica MD, PhD, MBA, N/A, N/A, N/A, N/A, QCRL.

Performing Site:
QCRL: QUEST DIAGNOSTICS REFERENCE LAB CAPISTRANO 33608 Ortega Highway San Juan Capistrano CA 92675

Reported Date: 2023.08.17 14:52 AGDEL

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