

LABORATORY REPORT

Example Client, XYZ123 1234 Warde Road Ann Arbor MI 48108

EXAMPLE, REPORT W

WX000003826 F 12/05/1988 34 Y

Referral Testing

Collected: 08/31/2023 11:11 Received: 08/31/2023 11:11

Test Name Result Flag Ref-Ranges <u>Units</u> <u>Site</u>

Calreticulin (CALR) Mutation Analysis

QCRL Clinical Indication: na QCRL Specimen Source: na QCRL Block/Specimen ID: na OCRI **CALR Exon 9 Mutation DETECTED** AB

> Reference Range: NOT DETECTED

QCRL SEE NOTE Gene

CALR

QCRL Amino Acid SEE NOTE

p.Leu367Thrfs*46

QCRL SEE NOTE **Mutation Frequency**

59.3

QCRL SEE NOTE **Mutation Type**

frameshift

SEE NOTE QCRL **Exon**

Exon 9

QCRL **Nucleotide Change** SEE NOTE

c.1099 1150del

Reference SEE NOTE QCRL

COSM1738055

QCRL Interpretation SFF NOTE

A type 1 frameshift mutation is detected in exon 9 of CALR. Mutations of this type are associated with essential thrombocythemia (ET) and primary myelofibrosis (PMF). Insertions up to 30bp and deletions up to 52bp have been successfully detected by the assay. CALR mutational analysis can be performed on sequential samples to assess for treatment response.

This data was reviewed and interpreted by Charles Ma, PhD. HCLD(ABB)

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

F231000024 WX000003826 Printed D&T: 08/31/23 11:13 Ordered By: KAJAL SITWALA, MD, PhD WX0000000002353

Kaial V. Sitwala, MD. PhD - Medical Director Form: MM RL1

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Assay Details SEE NOTE QCRL

This PCR-based advanced sequencing assay interrogates DNA from leukocytes for the presence of mutations in exon 9 of calreticulin (CALR). The sensitivity of mutation detection is approximately 5% but may vary depending on the particular mutation type. Insertions up to 30bp and deletions up to 52bp have been successfully detected by the assay. Alterations outside of the tested areas of this gene will not be detected. Synonymous or known non-synonymous polymorphic changes (SNPs) are not reported. Frameshift mutations in this region of CALR are associated with myeloproliferative neoplasms (MPNs), particularly essential thrombocythemia (ET) and primary myelofibrosis (PMF). Results of this assay should be correlated with morphology and other laboratory testing for final diagnosis and classification. If this test is negative, additional testing that may be useful for workup of MPNs, depending on presenting hematologic features, includes BCR-ABL1 rearrangement (test code 91065 or 12070X) or mutational analysis of JAK2 V617F (polycythemia vera (PV)/ET/PMF, 92473), JAK2 exon 12 (PV, 92474), MPL (ET/PMF, 92476) or CSF3R (chronic neutrophilic leukemia, 92477). Residual material from this sample may be used except for BCR-ABL1 testing; call lab to add.

DNA was aligned to GRCh37(hg19) for analysis and transcript ID $\pm NST00000316448$ was used as reference for CALR sequence.

For additional information, please refer to http://education.QuestDiagnostics.com/faq/FAQ211 (This link is being provided for informational/educational purposes only.)

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
33608 Ortega Highway
San Juan Capistrano, CA 92675-2042

I Maramica MD, PhD, MBA

Performing Site:

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

Reported Date: 2023.08.31 11:13 CALRA

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

F231000024 WX0000003826 Printed D&T: 08/31/23 11:13 Ordered By: KAJAL SITWALA, MD, PhD WX00000000002353

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