

## 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: 09/01/2023 10:18 Received: 09/01/2023 10:18

Test Name Result Flag Ref-Ranges Units Site

TP53 Somatic Mutation, Prognostic

Specimen TypeWB LAVQCRLBlock NumberNAQCRLP53 Mutation, LeumetaPOSITIVEAB NEGATIVE

Test Performed at:
Quest Diagnostics Nichols Institute
33608 Ortega Highway
San Tuan Capistrano CA 92675-2042

San Juan Capistrano, CA 92675-2042 I Maramica MD, PhD, MBA

 Exon 4
 .
 QCRL

 Exon 5
 .
 QCRL

 Exon 6
 .
 QCRL

 Exon 7
 .
 QCRL

 Exon 8
 .
 QCRL

 Exon 9
 .
 QCRL

 Interpretation
 DETECTED
 QCRL

TP53 mutation, (c.526T>C ( p.Cys176Arg ), 81.6%) was detected. Mutations in this tumor suppressor gene are frequently seen in a variety of cancer types. In rare untreated or pretreated patients, TP53 mutation may be present in the germline and indicate a hereditary cancer syndrome, in which case genetic counseling is suggested.

Mutations in TP53 tumor suppressor gene occur in greater than 50% of adult human cancers. The TP53 gene mutations usually correlate with poor outcome and early recurrence in cancer. Testing was performed on P53 exon 2-11 which account for >90% mutations in TP53 gene. We cannot rule out the possibilities of mutation in other sites of the gene.

The total nucleic acid was extracted from patient's whole blood or bone marrow cells or paraffin embedded tissues. For paraffin embedded specimens, microscopic review and marking of the specimen was performed by a pathologist, and genomic DNA was extracted from macro-dissected paraffin-embedded tissue sections. Next-generation sequencing (NGS) was used to detect mutations in all coding exons of TP53 (exons 2-11). TP53, NM\_000546.5 was used as reference. This assay does not detect large deletions in the p53 gene. For (17p-) please refer to FISH assay. The sensitivity of this sequencing assay is 5% of mutant alleles in the background of normal wildtype alleles. Insertions up to 30bp and deletions up to 48bp have been successfully detected by this assay.



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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.

Laboratory results and submitted clinical information reviewed by Bernard Joseph Ilagan, MD, MHA, FACMG, CGMBS.

Performing Site:

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

**Reported Date:** 2023.09.01 10:19 TP53

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

F301000008 WX0000003826 Printed D&T: 09/01/23 10:19 Ordered By: KAJAL SITWALA, MD, PhD WX00000000002353

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