

**Specimen Collected: 20-Dec-21 17:09**

CYP2C19		Received: 21-Dec-21 07:19	Report/Verified: 21-Dec-21 08:54
Procedure	Result	Units	Reference Interval
2C19GENO Specimen	Whole Blood		
CYP2C19 Genotype	Negative		
CYP2C19 Phenotype	Normal		
2C19GENO	See Note <sup>f1 i1</sup>		
Interpretation			

**Result Footnote**

f1: 2C19GENO Interpretation

The following CYP2C19 allele(s) were detected: Neg/Neg. This result predicts the normal metabolizer phenotype.

Recommendation: Guidelines for genotype-based dosing are published by the Clinical Pharmacogenetics Implementation Consortium (CPIC) and other organizations. See : <https://www.pharmgkb.org/>

This result has been reviewed and approved by Sherin Shaaban, M.D., Ph.D.

**Test Information**

i1: 2C19GENO Interpretation

BACKGROUND INFORMATION: CYP2C19

**CHARACTERISTICS:** The cytochrome P450 (CYP) isozyme 2C19 is involved in the metabolism of many drugs. Variants in the gene that code for CYP2C19 will influence pharmacokinetics of CYP2C19 substrates, and may predict or explain non-standard dose requirements, therapeutic failure or adverse reactions.

**INHERITANCE:** Autosomal codominant.

**CAUSE:** CYP2C19 gene variants affect enzyme function.

**VARIANTS TESTED:**

(Variants are numbered according to NM\_000769 transcript).

Negative: No variants detected is predictive of the \*1 functional allele.

CYP2C19\*2: rs4244285, c.681G>A; rs12769205, c.332-23A>G

CYP2C19\*3: rs4986893, c.636G>A

CYP2C19\*4A: rs28399504, c.1A>G

CYP2C19\*4B: rs28399504, c.1A>G; rs12248560, c.-806C>T

CYP2C19\*5: rs56337013, c.1297C>T

CYP2C19\*6: rs72552267, c.395G>A

CYP2C19\*7: rs72558186, c.819+2T>A

CYP2C19\*8: rs41291556, c.358T>C

CYP2C19\*9: rs17884712, c.431G>A

CYP2C19\*10: rs6413438, c.680C>T

CYP2C19\*17: rs12248560, c.-806C>T

CYP2C19\*35: rs12769205, c.332-23A>G

\*=Abnormal, #=Corrected, C=Critical, f=Result Footnote, H-High, i-Test Information, L-Low, t-Interpretive Text, @=Performing lab

**Unless otherwise indicated, testing performed at:**

ARUP Laboratories

500 Chipeta Way, Salt Lake City, UT 84108

Laboratory Director: Tracy I. George, MD

ARUP Accession: 21-354-900147

Report Request ID: 15067238

Printed: 21-Dec-21 12:29

Page 1 of 2

**Test Information**

i1: 2C19GENO Interpretation

CLINICAL SENSITIVITY: Drug-dependent.

METHODOLOGY: Polymerase chain reaction (PCR) and fluorescence monitoring.

ANALYTICAL SENSITIVITY AND SPECIFICITY: Greater than 99 percent.

LIMITATIONS: Only the targeted CYP2C19 variants will be detected by this panel, and assumptions about phase and content are made to assign alleles. Publicly available sources such as the [www.pharmvar.org](http://www.pharmvar.org) or [www.pharmgkb.org](http://www.pharmgkb.org) provide guidance on phenotype predictions and allele frequencies. Diagnostic errors can occur due to rare sequence variations. Risk of therapeutic failure or adverse reactions with CYP2C19 substrates may be affected by genetic and non-genetic factors that are not detected by this test. This result does not replace the need for therapeutic drug or clinical monitoring.

Please note the information contained in this report does not contain medication recommendations, and should not be interpreted as recommending any specific medications. Any dosage adjustments or other changes to medications should be evaluated in consultation with a medical provider.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

Counseling and informed consent are recommended for genetic testing. Consent forms are available online.

\*=Abnormal, #=Corrected, C=Critical, f=Result Footnote, H=High, i=Test Information, L=Low, t=Interpretive Text, @=Performing lab

***Unless otherwise indicated, testing performed at:***

**ARUP Laboratories**

500 Chipeta Way, Salt Lake City, UT 84108

Laboratory Director: Tracy I. George, MD

**ARUP Accession:** 21-354-900147

**Report Request ID:** 15067238

**Printed:** 21-Dec-21 12:29