ARUP LABORATORIES | www.aruplab.com
500 Chipeta Way, Salt Lake City, Utah 84108-1221
phone: (801) 583-2787, toll free: (800) 522-2787
Julio C. Delgado, MD, MS, Director of Laboratories

Client: ARUP Physician Services
321 TESTING ANSR EXTRACT
Salt Lake City, NY 84108
UNITED STATES

Physician: TEST,

Patient: 21986 ARUPTEST, 3A4/3A5 1a

DOB
Gender: Female
Patient Identifiers: [redacted]
Visit Number (FIN): [redacted]
Collection Date: 5/22/2019 14:58

CYP3A4 and CYP3A5

ARUP test code 3001518

3A4/3A5 Specimen	Whole Blood
CYP3A4 Genotype	Neg/Neg
CYP3A5 Genotype	Neg/Neg
3A4/3A5 Interpretation	See Note

Interpretation: No impaired CYP3A4 variants were detected, consistent with functional *1 alleles. This result predicts the normal metabolizer phenotype.

Interpretation: No CYP3A5 variants were detected, consistent with functional *1 alleles. This result predicts the normal metabolizer phenotype.

This result has been reviewed and approved by Gwen McMillin, Ph.D.

H=High, L=Low, *=Abnormal, C=Critical

BACKGROUND INFORMATION: CYP3A4 and CYP3A5

CHARACTERISTICS: The cytochrome P450 (CYP) 3A subfamily of enzymes is involved in metabolism of many drugs. Variants in the genes that code for CYP3A4 and CYP3A5 may influence pharmacokinetics of CYP3A substrates, and may predict or explain non-standard dose requirements, therapeutic failure or adverse reactions.
INHERITANCE: Autosomal co-dominant.
CAUSE: CYP3A4 or CYP3A5 gene variants affect enzyme expression or activity.
VARIANTS TESTED:
(Variants are numbered according to NM_017460 transcript for CYP3A4 and NM_000777 transcript for CYP3A5)
Negative: No variants detected is predictive of *1 functional alleles (CYP3A4 and/or CYP3A5)

CYP3A4*1B: rs2740574, c.-392G>A
CYP3A4*15: rs4986907, c.485G>A
CYP3A4*22: rs35599367, c.522-191C>T

CYP3A5*3: rs776746, c.219-237A>G
CYP3A5*6: rs10264272, c.624G>A
CYP3A5*7: rs41303343, c.1035_1036insT

CLINICAL SENSITIVITY: Drug-dependent.
METHODOLOGY: Polymerase chain reaction (PCR) and fluorescence monitoring.
ANALYTICAL SENSITIVITY AND SPECIFICITY: Greater than 99 percent.
LIMITATIONS: Only the targeted CYP3A4 and CYP3A5 variants will be detected by this panel, and assumptions about phase and content are made to assign alleles. Publically available sources such as the www.pharmvar.org or 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 CYP3A 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.

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

VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
3A4/3A5 Specimen	19-142-116587	5/22/2019 2:58:00 PM	5/22/2019 3:02:50 PM	5/23/2019 12:01:00 PM
CYP3A4 Genotype	19-142-116587	5/22/2019 2:58:00 PM	5/22/2019 3:02:50 PM	5/23/2019 12:01:00 PM
CYP3A5 Genotype	19-142-116587	5/22/2019 2:58:00 PM	5/22/2019 3:02:50 PM	5/23/2019 12:01:00 PM
3A4/3A5 Interpretation	19-142-116587	5/22/2019 2:58:00 PM	5/22/2019 3:02:50 PM	5/23/2019 12:01:00 PM

END OF CHART

H=High, L=Low, *=Abnormal, C=Critical