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Patient Report

Patient Age/Sex: Unknown

Specimen Collected: 20-Dec-21 17:07

CYP3A4 and CYP3A5 **|Received: 21-Dec-21 07:19** **Report/Verified: 21-Dec-21 08:53**

Procedure	Result	Units	Reference Interval
3A4/3A5 Specimen	Whole Blood		
CYP3A4 Genotype	Negative		
CYP3A4 Phenotype	Normal		
CYP3A5 Genotype	Negative		
CYP3A5 Pheno	Normal		
3A4/3A5 Interpretation	See Note f1 i1		

Result Footnote

f1: 3A4/3A5 Interpretation

The following CYP3A4 allele(s) were detected: Neg/Neg. This result predicts the normal metabolizer phenotype.

The following CYP3A5 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 can be found at: https://www.pharmgkb.org/.

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

Test Information

i1: 3A4/3A5 Interpretation

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 codominant.
CAUSE: CYP3A4 or CYP3A5 gene variants affect enzyme function.
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.1035dup

Test Information

i1: 3A4/3A5 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 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.

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.