MAYO CLINIC
Mayo Medical Laboratories

TEST DEFINITION

12/6/2011

NAME/ORDER CODE CROSS-REFERENCE

CODE	NAME
1A2O	CYP1A2 GENOTYPE, SALIVA

TEST SETUP INFORMATION

ORDER CODE	RESULT CODE	TITLE	CHECKING NORMALS	PRINT NORMALS	PERFORM SITE *
1A2O		CYP1A2 GENOTYPE, SALIVA			MCR

TRANSPORT TEMP : AMBIENT

33007	1A2 -3860G>A	UNITS:
33008	1A2 -2467TDEL	UNITS:
33009	1A2 -729C>T	UNITS:
33010	1A2 -163C>A	UNITS:
33011	1A2 125C>G	UNITS:
33012	1A2 558C>A	UNITS:
33013	1A2 2385G>A	UNITS:
33014	1A2 2473G>A	UNITS:
33015	1A2 2499A>T	UNITS:
33016	1A2 3497G>A	UNITS:
33017	1A2 3533G>A	UNITS:
33018	1A2 5090C>T	UNITS:
33019	1A2 5166G>A	UNITS:
33020	1A2 REVIEWED BY	UNITS:

ORDER CODE	RESULT CODE	TITLE	CHECKING NORMALS	PRINT NORMALS	PERFORM SITE *
1A2O (CONTINUED...)					
	33021	1A2 PHENOTYPE INTERPRETATION			

UNITS:

TEST CODE ALWAYS MESSAGE - [NP0039]

NP0039 DIRECT POLYMORPHISM ANALYSIS FOR -3860G>A, -2467T>DEL T, -729C>T, -163C>A, 125C>G, 558C>A, 2385G>A, 2473G>A, 2499A>T, 3497G>A, 3533G>A, 5090C>T, AND 5166G>A IS PERFORMED FOLLOWING PCR AMPLIFICATION. DIRECT DNA TESTING WILL NOT DETECT ALL THE KNOWN MUTATIONS THAT RESULT IN DECREASED OR INACTIVE CYP1A2 ALLELES. THIS ASSAY DOES NOT TEST FOR SOME KNOWN POLYMORPHISMS BECAUSE THOSE POLYMORPHISMS HAVE NOT BEEN ASSOCIATED WITH ALTERATIONS IN ENZYMATIC ACTIVITY. RARE OR UNDESCRIBED VARIANTS MAY NOT HAVE BEEN FOUND DURING VALIDATION BUT WILL BE SEQUENCE VERIFIED UPON DETECTION. SEE HTTP://WWW.CYPALLELES.KI.SE/CYP1A2.HTM FOR A FULL DESCRIPTION OF CYP1A2 ALLELES. ABSENCE OF A DETECTABLE GENE MUTATION OR POLYMORPHISM DOES NOT RULE OUT THE POSSIBILITY THAT A PATIENT HAS A METABOLIZER STATUS OTHER THAN PREDICTED ABOVE. THE FREQUENCY OF POLYMORPHISMS CAUSING POOR METABOLISM HAS NOT BEEN FULLY CHARACTERIZED IN VARIOUS ETHNIC GROUPS. PATIENTS WITH AN ULTRARAPID, EXTENSIVE (NORMAL), OR INTERMEDIATE GENOTYPE MAY HAVE CYP1A2 ENZYME ACTIVITY INHIBITED OR INDUCED BY A VARIETY OF SUBSTANCES, MEDICATIONS, OR THEIR METABOLITES. THE FOLLOWING IS A LISTING OF SUBSTANCES KNOWN TO AFFECT CYP1A2 ACTIVITY AS OF THE DATE OF THIS REPORT.

DRUGS AND SUBSTANCES KNOWN TO INCREASE (INDUCE) CYP1A2 ACTIVITY INCLUDE: BROCCOLI, BRUSSEL SPROUTS, CHAR-GRILLED MEAT, INSULIN, METHYLCHOLANTHRENE, MODAFINIL, NAFCILLIN, BETA-NAPHTHOFLAVONE, OMEPRAZOLE, AND TOBACCO. COADMINISTRATION WILL INCREASE THE RATE OF METABOLISM OF CYP1A2 METABOLIZED DRUGS AND MAY CHANGE THE EFFECTIVENESS OF THE DRUG.

DRUGS AND SUBSTANCES KNOWN TO DECREASE CYP1A2 ACTIVITY INCLUDE: AMIODARONE, CIMETIDINE, CIPROFLOXACIN, FLUOROQUINOLONES, FLUVOXAMINE, FURAFYLLINE, INTERFERON, METHOXSALEN, AND MIBEFRADIL. COADMINISTRATION WILL DECREASE THE RATE OF METABOLISM OF CYP1A2 METABOLIZED DRUGS, INCREASING THE POSSIBILITY OF TOXICITY.

DRUGS AND SUBSTANCES THAT UNDERGO METABOLISM BY CYP1A2 INCLUDE: ACETAMINOPHEN, AMITRIPTYLINE, CAFFEINE,

CLOMIPRAMINE, CLOZAPINE, CYCLOBENZAPRINE, ESTRADIOL,

TEST SETUP INFORMATION

ORDER CODE	RESULT CODE	TITLE	CHECKING NORMALS	PRINT NORMALS	PERFORM SITE *
1A2O (CONTINUED...)					

FLUVOXAMINE, HALOPERIDOL, IMIPRAMINE, MEXILETINE, NAPROXEN, OLANZAPINE, ONDANSETRON, PHENACETIN, PROPRANOLOL, RILUZOLE, ROPIVACAINE, TACRINE, THEOPHYLLINE, TIZANIDINE, VERAPAMIL, (R)WARFARIN, ZILEUTON, AND ZOLMITRIPTAN. COADMINISTRATION MAY DECREASE THE RATE OF ELIMINATION OF OTHER DRUGS METABOLIZED BY CYP1A2.

TEST CODE ALWAYS MESSAGE - [TLDT]
TLDT LABORATORY DEVELOPED TEST.

*PERFORMING SITE LEGEND

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*** END OF REPORT ***