MAYO CLINIC
Mayo Medical Laboratories

Laboratory Service Report 1-800-533-1710

Patient Name	Patient ID	Age	Gender	Order #
SAMPLEREPORT,U1A1O	SA00055139	46	F	SA00055139
Ordering Phys UNKNOWN,PROVIDER				**DOB** 06/10/1966
Client Order # SA00055139	**Account Information**			**Report Notes**
Collected 03/15/2013 01:13	C7028846-DLMP Rochester 3050 Superior Drive Rochester, MN 55901			
Printed 05/28/2013 14:34				

Test	Flag	Results	Unit	Reference Value	Perform Site*
UGT1A1 TA Repeat Genotype, Saliva			REPORTED 05/28/2013 13:09		
TA/TA		7/7			MCR
Reviewed by		Jamie Bruflat			MCR
UGT1A1 TA Repeat Genotype					MCR

Homozygous for the TA7 repeat allele.
This individual is homozygous for the UGT1A1 *28 allele that has an extra inserted copy of TA in the TA repeat of the UGT1A1 promoter (TA7 repeat). Enzyme expression is inversely related to the number of TA repeats. This genotype is associated with decreased UGT1A1 expression (30 to 50% of normal) and with significant risk for severe neutropenia (grade 4). This risk is most associated with neutropenia when irinotecan is administered every 3 weeks. The irinotecan drug labeling should be consulted for drug dosing recommendations.
Following amplification in the polymerase chain reaction, the number of TA repeats is determined by capillary electrophoresis.

There are numerous polymorphisms and rare mutations that affect glucuronidation. This test measures only the TA copy number of the TATAA box of the promoter. A negative test result does not fully exclude risk for adverse drug reactions with irinotecan chemotherapy.

SN-38 metabolism is affected not only by polymorphisms and mutations in the UGT1A1 gene, but is affected as well by other drug-drug interactions.

Drugs known to increase the concentrations of irinotecan and its active metabolite SN-38 are effective inhibitors of the cytochrome P450 3A family of enzymes (CYP3A4 and CYP3A5) which are also involved in the metabolism of irinotecan: Atazanavir sulfate, Ketoconazole (discontinue Ketoconazole at least 1 week prior to and during therapy).

Drugs and herbal supplements known to decrease the concentration of irinotecan and its active metabolite SN-38 are inducers of the cytochrome P450 3A family of enzymes (CYP3A4 and CYP3A5): Carbamazepine, Phenobarbital, Phenytoin, St. John's Wort.

Phenobarbital is also an inducer of UGT1A1 and may result in increased glucuronidation of SN-38 with a resultant

Performing Site Legend on Last Page of Report

* Report times for Mayo performed tests are CST/CDT

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decrease in SN-38 availability.
Laboratory developed test.

* Performing Site:

MCR	Mayo Clinic Laboratories - Rochester Main Campus 200 First St SW Rochester, MN 55905	Lab Director: Franklin R. Cockerill, III, M.D.