MAYO CLINIC
Mayo Medical Laboratories

1-800-533-1710

HL58O

HLA-B*5801 Genotype, Allopurinol Hypersensitivity, Saliva

Patient ID	Patient Name		Birth Date	Gender	Age
SA00056523	TESTINGRNV, ATLAS HL58O		2013-04-01	F	8 D
Order Number	**Client Order Number**	**Ordering Physician**	**Report Notes**		
SA00056523	SA00056523	Client, Client			
Account Information		**Collected**			
C7028846 DLMP Rochester		09 Apr 2013 06:00			

HLA-B 5801, Allopurinol, Saliva

HLA-B 5801 Saliva Result

MCR

Negative

HLA-B 5801 Saliva Interpretation

[1] MCR

The HLA-B*5801 allele was not detected. This patient is at no greater risk than the general population for the development of an allopurinol hypersensitivity reaction, such as Stevens-Johnson Syndrome or toxic epidermal necrolysis, when treated with allopurinol. A negative result does not preclude the development of allopurinol hypersensitivity syndrome in every case, since other factors may contribute to the onset of this syndrome. Therapy should be discontinued immediately and permanently if allopurinol hypersensitivity syndrome develops.

ADDITIONAL INFORMATION

HLA-B genotyping is performed by allele-specific amplification to verify the presence or absence of the HLA-B*58:01 allele (IMGT/HLA accession number HLA00386).

Screening for the HLA-B*58:01 allele is recommended before initiating therapy with allopurinol, due to the increased risk of developing allopurinol induced severe cutaneous adverse reactions (SCAR). Within SCAR there is a spectrum of reactions that includes drug hypersensitivity syndrome, Stevens-Johnson syndrome (SJS), and toxic epidermal necrolysis (TEN). Patients with the HLA-B*58:01 allele who are of Han Chinese or Thai descent or Korean descent with stage 3 or worse chronic kidney disease, are at high risk for allopurinol hypersensitivity syndrome. A similar but more modest association with allopurinol hypersensitivity has also been observed for individuals with HLA-B*58:01 who are of European and Japanese descent. The impact of this allele on risk of allopurinol hypersensitivity syndrome has not been established for other ethnic or racial groups.

For additional information regarding pharmacogenomic genes and their associated drugs, please see the Pharmacogenomic Associations Tables on the Mayo Medical Laboratories webpage, www.mayomedicallaboratories.com. This resource also includes information regarding enzyme inhibitors and inducers, as well as potential alternate drug choices. Please note that the information at this link is educational material intended for health care professionals and may not be comprehensive. This educational material is not intended to supersede the care provider's experience and knowledge of her/his patient to establish a diagnosis or a treatment plan. All medications require careful clinical monitoring. Please contact the laboratory at 1–800–533–1710 for further information about pharmacogenomic testing.

CAUTIONS:

Rare or novel variants may be present that could lead to false negative or false positive results. This assay also detects closely related rare alleles including HLA-B*57:05, *58:04, *58:05, *58:09, *58:10, *58:11, *58:12, *58:13, *58:15, *58:17, *58:19, *58:21, *58:22, *58:23, *58:24 and *58:28. There are currently no data indicating whether these or any other alleles or subtypes are associated with allopurinol induced severe cutaneous adverse reactions. If results obtained do not match the clinical findings (phenotype), additional testing should be considered.

Samples may contain donor DNA if obtained from patients who received heterologous blood transfusions or allogeneic blood or marrow transplantation. Results from samples obtained under these circumstances may not accurately reflect the recipient's genotype. For individuals who have received blood transfusions, the genotype usually reverts to that of the recipient within 6 weeks. The impact of blood or marrow transplantation on risk of severe cutaneous adverse reactions with allopurinol is not defined in the literature.

Reviewed by

MCR

LAURA TRAIN

Received: 10 Apr 2013 13:17 **Reported:** 10 Apr 2013 13:21

Laboratory Notes

[1] Analyte Specific Reagent: This test was developed and its performance characteristics determined by Mayo Clinic. It has not been cleared or approved by the U.S. Food and Drug Administration.

Performing Site Legend

Code	Laboratory	Address
MCR	Mayo Clinic Dept. of Lab Med and Pathology	200 First Street SW, Rochester, MN 55905