MAYO CLINIC LABORATORIES

NEW TEST

Notification Date: May 10, 2021
Effective Date: June 10, 2021

*HLA-B*5801 Genotype, Allopurinol Hypersensitivity, Varies*

Test ID: HL58R

Useful for:

Identifying individuals with an increased risk of severe cutaneous adverse reactions to allopurinol based on the presence of the human leukocyte antigen *HLA-B*58:01* allele

Method:

Qualitative Allele-Specific Real-Time Polymerase Chain Reaction (PCR)

Reference Values:

An interpretive report will be provided.

Specimen Stability Information:

Specimen Type	Temperature	Time
Varies	Varies	

Specimen Requirements:

Multiple genotype tests can be performed on a single specimen after a single extraction.

Submit only 1 of the following specimens:

Specimen Type: Whole blood
Container/Tube: Lavender top (EDTA)
Specimen Volume: 3 mL
Collection Instructions:
1. Invert several times to mix blood.
2. Send specimen in original tube.
Specimen Stability Information: Ambient (preferred) 9 days/Refrigerated 30 days

Specimen Type: Saliva
Patient Preparation: Patient should not eat, drink smoke, or chew gum 30 minutes prior to collection.
Supplies: Saliva Swab Collection Kit (T786)
Specimen Volume: 1 swab
Collection Instructions: Collect and send specimen per kit instructions.
Additional Information: Due to lower concentration of DNA yielded from saliva, testing cannot proceed to tier 2 sequencing and will stop after tier 1 testing is complete.
Specimen Stability Information: Ambient 30 days

Specimen Type: DNA
Container/Tube: 2 mL screw top tube
Specimen Volume: 100 mcL (microliters)
Collection Instructions:
1. The preferred volume is 100 mcL at a concentration of 75 ng/mcL.

2. Include concentration and volume on tube.
Specimen Stability Information: Frozen (preferred)/Ambient/Refrigerated

Cautions:

Samples may contain donor DNA if obtained from patients who received non-leukoreduced blood transfusions or allogeneic hematopoietic stem cell 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 hematopoietic stem cell transplantation on risk of severe cutaneous adverse reactions with allopurinol is not defined in the literature.

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.

CPT Code:

81381

Day(s) Setup: Monday, Wednesday, Friday

Analytic Time: 1 day

Questions

Contact your Laboratory Technologist Resource Coordinator Heather Flynn Gilmer at 800-533-1710.