Platelet Antigen 1 Genotyping (HPA-1)

Platelet Antigen 1 Specimen: Whole Blood

Platelet Antigen 1 Genotyping: b/b

Platelet Antigen 1 Interpretation:

See Note

HPA-1b/b Homozygous: Two copies of the less-common human platelet antigen (HPA)-1 b allele were identified.

Indication for testing: Assess risk for alloimmune thrombocytopenia.

This result has been reviewed and approved by Yuan Ji, Ph.D.

BACKGROUND INFORMATION: Platelet Antigen 1 Genotyping (HPA-1)

Characteristics: Spontaneous fetal intracranial bleeding may occur in 20 percent of pregnancies affected with severe perinatal alloimmune thrombocytopenia (PAT); there is a risk of fetal death. Post-transfusion purpura may occur in transfusion recipients with antibodies to a specific platelet antigen.

Inheritance: For women homozygous for a rare "b" HPA allele with antibodies to the common "a" allele, there is a 50 percent risk a pregnancy will be affected if her partner is heterozygous for the "a" allele and 100 percent risk if her partner is homozygous for the "a" allele.

Cause: Maternal-fetal HPA incompatibility.

Polymorphism Tested: HPA-1 (ITGB3, GPIIIa) c.176T>C, p.L59P

Clinical Sensitivity: 80 percent in Caucasians, unknown in other ethnicities.

Methodology: PCR followed by fluorescent monitoring.

Analytic Sensitivity and Specificity: 99 percent.

Limitations: Bloody amniotic fluid specimens may give false-negative results because of maternal cell contamination. Diagnostic errors can occur due to rare sequence variations.


Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement C: aruplab.com/CS
### VERIFIED/REPORTED DATES

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**H=High, L=Low, *=Abnormal, C=Critical**