



Procedure	Result	Units	Ref Interval	Accession	Collected	Received	Reported/Verified
KEL GENO Specimen	Amniotic fluid			19-256-900100	13-Sep-19	13-Sep-19	13-Sep-19
KEL Genotype	K/k f			19-256-900100	13-Sep-19	13-Sep-19	13-Sep-19
Doctor Review, KEL GENO	Best, Hunter			19-256-900100	13-Sep-19	13-Sep-19	13-Sep-19

13-Sep-19 11:10:00 KEL Genotype:

Indication for testing: Determine fetal Kell genotype to assess risk for alloimmune hemolytic disease of the fetus and newborn (HDFN).

Fetal Kell genotype: K/k

Interpretation: One copy of the KEL\*01 (K) allele and one copy of the KEL\*02 (k) allele were detected in this fetal sample. This genotype is predictive of a K+k+ phenotype (also referred to as "Kell positive"). This result has been reviewed and approved by Hunter Best, Ph.D.

13-Sep-19 11:10:00 KEL Genotype:

BACKGROUND INFORMATION: Kell K/k (KEL) Antigen Genotyping

CHARACTERISTICS: Erythrocyte alloimmunization may result in hemolytic transfusion reactions or hemolytic disease of the fetus and newborn (HDFN).

K ANTIGEN FREQUENCY: 9 percent of Caucasians, 2 percent of African Americans, rare in Asians.

INHERITANCE: Co-dominant.

CAUSE: Antigen-antibody mediated red-cell hemolysis between donor/recipient or transferred maternal antibodies.

POLYMORPHISM TESTED: Kell blood group KEL\*01 (K), KEL\*02 (k): c.578C>T, p.Thr193Met. The presence of KEL\*01 allele predicts a K positive phenotype.

CLINICAL SENSITIVITY: 99 percent.

METHODOLOGY: Immucor PreciseType(TM) HEA Molecular BeadChip which is FDA-approved for clinical testing.

ANALYTIC SENSITIVITY AND SPECIFICITY: 99 percent.

LIMITATIONS: Bloody amniotic fluid samples may give false-negative results because of maternal cell contamination. Rare nucleotide changes leading to altered or partial antigen expression and null phenotypes are not detected by this assay. Patients who have had hematopoietic stem cell transplants may have inconclusive results on this test. Abnormal signal intensities may result in indeterminate genotyping results.

For quality assurance purposes, ARUP Laboratories will confirm the above result at no charge following delivery. Order Confirmation of Fetal Testing and include a copy of the original fetal report (or the mother's name and date of birth) with the test submission. Please contact an ARUP genetic counselor at (800) 242-2787 extension 2141 prior to specimen submission.

\* Abnormal, # = Corrected, C = Critical, f = Footnote, H = High, L = Low, t = Interpretive Text, @ = Reference Lab