

500 Chipeta Way, Salt Lake City, Utah 84108-1221

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Jonathan R. Genzen, MD, PhD, Chief Medical Officer

**Client:** ARUP Example Report Only

500 Chipeta Way

Salt Lake City, UT 84108-

USA

**Provider:** .108 -TEST,**Patient:** KEL GENO, POSITIVE**DOB:****Sex:** Male**Patient Identifiers:** 40667**Visit Number (FIN):** 40992**Client Supplied ID:****Specimen Collected:** 19-Sep-22 16:33**Kell K/k (KEL) Antigen Genotyping** | **Received:** 19-Sep-22 16:38 **Report/Verified:** 20-Sep-22 12:44

Procedure	Result	Units	Reference Interval
KEL GENO Specimen	Whole Blood		
KEL Genotype	K/K <sup>f1 i1</sup>		

**Result Footnote**

f1: KEL Genotype

Indication for testing: Determine parental Kell genotype to assess risk for alloimmune hemolytic disease in offspring.

Genotype: K/K

Interpretation: Two copies of the KEL\*01 (K) allele were detected in this whole blood sample; the KEL\*02 (k) allele was not detected. This genotype is predictive of a K+k- phenotype (also referred to as "Kell positive"). This individual's offspring will all inherit the KEL\*01 (K) allele associated with a K positive phenotype.

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

**Test Information**

i1: 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.

\*=Abnormal, #=Corrected, C=Critical, f=Result Footnote, H-High, i-Test Information, L-Low, t-Interpretive Text, @=Performing lab

**Unless otherwise indicated, testing performed at:****ARUP Laboratories**

500 Chipeta Way, Salt Lake City, UT 84108

Laboratory Director: Jonathan R. Genzen, MD, PhD

**ARUP Accession:** 22-262-900241**Report Request ID:** 16423088**Printed:** 20-Sep-22 17:02

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**Patient:** KEL GENO, POSITIVE

**DOB:**

**Patient Identifiers:** 40667

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**Test Information**

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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.

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