

**NEW TEST**

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**Maternal Cell Contamination, Fetal Specimen**

0051596, MCC-FETAL

**Specimen Requirements:**

**Patient Preparation:**

**Collect:**

Cultured amniocytes, cultured CVS, or amniotic fluid  
OR cord blood in lavender (EDTA), pink (K2EDTA), or yellow  
(ACD solution A or B)

Note: If a prenatal/cord blood specimen has already been submitted for a diagnostic test at ARUP, a second prenatal/cord blood specimen is NOT required. If a prenatal/cord blood specimen has not yet been submitted, submit only 1 prenatal/cord blood specimen for BOTH the MCC-FETAL test order AND diagnostic test order. For questions regarding collection please contact ARUP's genetic counselor at 800-242-2787 ext. 2141.

**Specimen Preparation:**

Cultured amniocytes or cultured CVS: Two T-25 flasks at 80 percent confluency. (Min: one T-25 flask at 80 percent confluency). When a cultured specimen is submitted to ARUP, a backup culture must be retained at the client's institution until testing is complete. If ARUP receives a cultured specimen below the minimum confluence, Cytogenetics Grow and Send (ARUP test code 0040182) will be added on by ARUP, and additional charges will apply.

OR

Direct amniotic fluid: 30 mL (Min: 15 mL). If clients are unable to culture specimens, Cytogenetics Grow and Send should be added to the initial order.

OR

Cord blood specimen: 2 mL (Min: 1 mL).

**Transport Temperature:**

Preferred transport temp: room temperature. Cultures are CRITICAL ROOM TEMPERATURE and must be received within 48 hours of collection due to viability of cells.

**Unacceptable Conditions:**

Serum or plasma. Frozen, clotted, or severely hemolyzed samples. Buccal swab or brush.

**Remarks:**

Refer to Maternal Cell Contamination, Maternal Sample (MCC MAT, ARUP test code 0050608) for maternal specimen requirements.

**Stability:**

Cultured amniocytes or cultured CVS: Room temperature: 2 days; Refrigerated: Unacceptable; Frozen: Unacceptable  
Amniotic fluid (direct): Room temperature: 2 days;  
Refrigerated: 3 days; Frozen: 1 month

Cord blood: Room temperature: 1 week; Refrigerated: 1 month;  
Frozen: Unacceptable

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Methodology: Polymerase Chain Reaction (PCR) / Fragment Analysis

Note:

CPT Codes: 81265

New York DOH Approval Status: This test is New York DOH approved.

Interpretive Data:

A potential risk associated with testing on prenatal or cord blood samples is maternal cell contamination (MCC). MCC can occur if maternal blood or tissue comes into contact with a prenatal or cord blood sample, such as during prenatal diagnostic procedures such as chorionic villus sampling, amniocentesis, or extraction of fetal blood from the umbilical cord (cord blood). If significant MCC is present in a fetal or cord blood specimen, the maternal DNA may interfere with the interpretation of diagnostic genetic testing performed on the fetal/cord blood specimen. Therefore, the results of prenatal testing may be compromised.

MCC testing is ideally performed by obtaining both fetal and maternal specimens for genotyping using short tandem repeat markers (STRs). The STR patterns from the maternal and fetal specimens are compared to assess for the presence of maternal cells.

Reference Interval:

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HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.