

Maternal Cell Contamination (MCC) Screen

DESCRIPTION:

- This is a DNA test to examine presence of maternal cells contaminating a fetal sample. In such situations, an error may occur in interpretation of fetal results.

REASONS FOR REFERRAL

- Prenatal DNA diagnosis where maternal cell contamination is suspected, or for quality control of any prenatal DNA testing.
- 46XX / 46XY mosaicism in amniocentesis or CVS samples.
- Can also be used to determine parent of origin of molar / triploid fetal samples.

METHOD OF ANALYSIS:

- Size polymorphisms of tetranucleotide repeat alleles are determined by multiplex PCR amplification using fluorescently labeled specific primers. Typically, 5 loci are amplified from the fetal sample and from mother's blood. Alleles are determined by a high resolution laser-induced fluorescence capillary electrophoresis system with internal standard.
- Results are reported within 2 weeks of receipt of samples. STAT analysis must be arranged in advance with the laboratory.

REFERENCE RANGES:

- At least one informative locus must show a distinct allele in the mother, which is not present in the fetus, to rule out maternal cell contamination.

SAMPLE REQUIREMENTS:

- Note that samples are required from the fetus and the mother. Please call the laboratory to arrange for proper transport of the prenatal specimen (amniocytes, CVS cells, etc.).
- For DNA testing, 5 to 10 milliliters of blood (minimum 1 ml) in EDTA (purple top) tubes should be sent by overnight carrier at room temperature.

TEST CPT CODES:

CPT 83891 DNA extraction highly purified X 2
CPT 83894 DNA separation
CPT 83901 DNA amplification multiplex X 2
CPT 83912 DNA interpretation and report

Discounts from list price are available for institutional billing under contractual arrangement with the laboratory. Contact Ellen Livers at 800-447-6614 ext 7523.