

Zygoty (Twin) Studies

DESCRIPTION:

- This is a DNA multiple marker test to evaluate whether same sex twins are likely identical, or are fraternal.

REASONS FOR REFERRAL:

- If one twin has a medical syndrome, to evaluate the likelihood of the same syndrome developing in the co-twin.
- In situations where organ transplantation is being contemplated.
- To evaluate apparently demised twin material present at delivery.
- For possible chimerism in different tissue samples from the same individual.
- Parental interest.

METHOD OF ANALYSIS:

- Size polymorphisms of nucleotide repeat alleles are determined by multiplex PCR amplification using fluorescently labeled specific primers. Typically, three loci per selected chromosome (13, 18, 21, X; total 10-12 loci) are amplified in the twin samples. Alleles sizes are determined by a high resolution laser-induced fluorescence capillary electrophoresis system with internal standard.
- Results are reported within three weeks of receipt of samples. STAT analysis must be arranged in advance with the laboratory.

REFERENCE RANGES:

- If the twins are fraternal, an allele(s) should differ for at least one locus. If all alleles are identical in both, the probability they are identical exceeds 99%.

SAMPLE REQUIREMENTS:

- 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.
- Note that samples are required from both twins. Please contact the laboratory regarding specimens for prenatal analysis.

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.