

UCLA DIAGNOSTIC MOLECULAR PATHOLOGY LABORATORY
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DNA Fingerprinting

↑CPT

83891; 83890; 84311 (x2); 83907 (x2); 83900 (x2); 83901 (x8); 83909 (x2); 83912

↑Related Information

↑Synonyms

Genetic Identity; Specimen Identity

↑Test Includes

Compare specific DNA patterns (polymorphism) between specimens

↑Laboratory

Molecular Pathology

↑Availability

Monday-Friday, 0700-1700

↑Turnaround Time

3-28 days after receipt all of the specimens.

↑Specimen

Whole blood, tissue, paraffin blocks

↑Volume

4 mL blood; >0.2 grams tissue

↑ Container

Lavender top (EDTA) tube for blood, tissue kept at -70°C

↑ Storage Instructions

All specimens should be sent to the Laboratory immediately after collection, preferably by overnight delivery. Blood should be stored refrigerated, never frozen. Tissue should be stored frozen or refrigerated in saline and shipped to the Laboratory within 48 hours.

↑ Patient Preparation

Patient should receive no transfusions 90 days prior to testing.

↑ Causes for Rejection

If the tissue specimen thaws out during transport to the Laboratory or before shipping, DNA may not be obtained from the specimen; if <0.2 grams of tissue is sent to the laboratory, it may not yield enough DNA for analysis; blood samples frozen and thawed will yield low quality DNA; specimens inadequately identified

↑ Reference Range

None

↑ Use

Establish and compare specific DNA patterns (polymorphisms) between individuals, tissues, or specimens for purposes of identification or lineage

↑ Methodology

Polymerase Chain Reaction (PCR) analysis of polymorphic short tandem repeats

↑ Additional Information

The genetic material of humans is highly polymorphic, and an individual's genotype represents a unique pattern which determines that person's identity and heredity. The only exception to this rule is identical twins, since they are derived from a single fertilized egg and hence have the same DNA profile. As a general rule, DNA is constant in all tissues of the body (even prenatal samples such as amniotic cells and chorionic villi specimens). DNA isolated from any specimen from an individual will be identical, which can prove to be very valuable in forensic evidence. DNA typing provides a valuable tool for establishing family relationships. PCR tests using a panel of DNA primers specific for several polymorphic DNA regions can produce a composite profile

which is unique to an individual and can be traced through families to establish relationships. The laboratory report, in the form of a confidential letter, explains in detail all the polymorphic DNA markers used, the results (match or mismatch) with each, and the cumulative probability of paternity or nonpaternity, or identity or nonidentity of specimens.
