



MITOTYPING TECHNOLOGIES®

FORENSIC MITOCHONDRIAL ANALYSIS

A division of SoftGenetics, LLC

CUSTOMER MEMO

Mitotyping Technologies endeavors to provide the highest quality forensic DNA analysis to its customers. The success of our analysis is highly dependent on the quality and quantity of the DNA present in the evidentiary material provided for testing, and occasionally despite our best efforts, an analysis will fail or experience difficulties. In addition, we want our customers to be aware of the fact that samples are consumed in whole or part as a result of the analyses. To educate our customers about 1) the necessary consumption of samples during testing, 2) the financial implications of difficult samples that require repeat testing or specialized testing, and 3) the occasional contamination event, we have prepared this memo. **All samples should have any necessary microscopy and/or photodocumentation prior to submission for testing.**

Hair shaft samples of less than 2 cm in length will be consumed in testing. Hair samples of 2-4 cm may be halved and one portion will be reserved for additional testing. Hair samples of greater than 4 cm will have at least a 2 cm portion removed for testing that will be consumed. If the extraction of any hair sample produces no amplifiable DNA, there will be an extraction fee of \$1300 only.

A tooth will be consumed by powdering. A single test comprises one attempt to extract, amplify, and sequence the DNA from this tooth. If the first test is not successful, there will be an extraction fee of \$1400 only. The customer will determine if further teeth should be used in an attempt to complete the mitochondrial DNA analysis.

Bone samples will have a 2 cm² portion removed for testing if possible. If the first test is not successful, there will be an extraction fee of \$1400 only. The customer will determine if additional bone should be removed from the original sample in an attempt to complete the mitochondrial DNA analysis.

Occasionally hair, bone or tooth samples will contain very degraded DNA and require mitochondrial DNA amplification with *ancient DNA primers*. This type of testing provides half the usual amount of DNA sequence data at the same price as a standard analysis.

Any other type of questioned sample such as stain material has the potential to be consumed in analysis. In general, clients will be informed as to this possibility for any specific sample.

Regarding mitochondrial DNA analysis: Despite our best efforts, occasionally exogenous DNA (contamination) is introduced into the DNA that is extracted from submitted questioned materials. Contamination prevention includes all of the following: cleaning of samples prior to extraction, separation of pre- and post-PCR stages of the analysis into two laboratory rooms, use of lab coats, face shields and two pairs of gloves by technicians, processing of samples under dead-space or laminar-flow hoods, replacement of bench paper and bleach wipe-downs between samples, ultraviolet irradiation of pipettors, surfaces, and supplies, use of sterile aerosol barrier pipette tips, use of autoclaved forceps and tubes, and use of autoclaved, dedicated reagents and pre-packaged sterile equipment. On most occasions where contamination occurs, it is minimal, and successful interpretation of the results is possible. Rarely, successful interpretation is not possible.

I have read and I understand the above statements regarding sample consumption and the potential complications that may occur with forensic DNA analyses.

Signed _____ Date _____

Print Name _____ Title _____

CUSTOMER MEMO