Implementation of a Direct-to-DNA / Y-Chromosome Screening Process on Sexual Assault Evidence

Effective June 1, 2022, the Bexar County Criminal Investigation Laboratory (BCCIL) implemented a Direct-to-DNA / Y-Chromosome Screening process (DTD/Y-Screen) for the analysis of sexual assault evidence. This new process will screen sexual assault evidence originating from female complainants with alleged male perpetrators for the presence of human male DNA. If a sufficient quantity of human male DNA is detected, the sample is subjected to forensic DNA analysis and any resulting male genetic profile(s) are compared against provided known reference male standards and, if applicable, entered into the Combined DNA Index System (CODIS). The DTD/Y-Screen process is more sensitive than conventional body fluid screening and provides immediate information on if an alleged perpetrator’s genetic profile may be present in the sample. This streamlined process uses robotic instrumentation and requires less hands-on time for higher case through-put. The DTD/Y-Screen process has gained National recognition and is the recommended procedure for the efficient processing of sexual assault evidence collection kits (SAECKs).

If the sexual assault evidence qualifies for the DTD/Y-Screen process, then body fluid identification by conventional serological means (chemical, immunological or microscopical tests) will not be conducted and reported at the time of forensic DNA analysis. Should it be determined that body fluid identification is deemed necessary for litigation, the original item(s) may be resubmitted to the BCCIL for this analysis.

Please reference the following for additional information on the DTD/Y-Screen process:


- Scientific Working Group on DNA Analysis Methods (SWGDAM). Recommendations for the Efficient DNA Processing of Sexual Assault Kits (December 2016). [https://www.swgdam.org/_files/ugd/4344b0_4daf2bb5512b4e2582f895c4a133a0ed.pdf](https://www.swgdam.org/_files/ugd/4344b0_4daf2bb5512b4e2582f895c4a133a0ed.pdf)

Please direct all inquiries to the Forensic Serology / DNA Section of the BCCIL at 210-335-4100 or [g foster@bexar.org](mailto:g foster@bexar.org).

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