

3.1 PURPOSE

To determine the quantity of human and/or male DNA in biological samples.

3.2 RESPONSIBILITY

DNA Section Personnel

3.3 PROCEDURE: Real-Time PCR Procedure: Quantifiler Trio DNA Quantitation:

- 3.3.1 The quantity of human DNA in a question sample must be estimated prior to performing amplification using a human DNA quantitation method, e.g., the Quantifiler Trio kit manufactured by Applied Biosystems.
- 3.3.2 Detailed work instructions are found in DNA WI-07 Quantifiler Trio. Typically, a single reaction is performed for each of the five human DNA standards, although the standards may be run in replicate.
- 3.3.3 The standard curve must contain at least three data points.
- 3.3.4 The diluted DNA quantitation standards may be stored for longer than two weeks at 2 to 8°C based on internal validation and will have an expiration date of 1 month from the date of preparation. The slope, Y-intercept, and R^2 values should be evaluated to ensure that the diluted DNA quantitation standards perform as expected. Please refer to DNA WI-07 for acceptable slope, Y-intercept, and R^2 values.
- 3.3.5 When importing the sample setup file, use the CT-DSS Quantifiler Trio template found in the HID Real-Time PCR Analysis Software.
- 3.3.6 Reference: Quantifiler HP and Trio DNA Quantification Kits User Guide.
- 3.4 For procedures stopping at the quantitation stage, please refer to DNA WI-42 Casework Stop at Quantification Procedure, DNA WI-07 Quantifiler Trio Work Instruction, and DNA SOP-34 Male Screen Procedure.