



Intermountain Forensics

SOP # QTY-201

Revision # 01

Forensic DNA Technical Leader Approval

Issue Date

03/01/2023

Quantification Data Analysis

1. Purpose

This document describes the procedure for analyzing the quantification data generated using Quant Trio (ThermoFisher) or Quantiplex Pro (Qiagen) on the Quant Studio 5 (ThermoFisher) instrument.

2. Summary

Directions for entry of the results into the DOC-307 Case Chronicle and decision-making steps for accepting the data.

3. Procedure

1. Open the appropriate saved Export file.
2. Open the DOC-307 Case Chronicle and Click on the Results Tab for the Kit type used.
3. Highlight the Well Position, Sample Name, Target Name, and Quantity information in the Export file and copy by either right clicking and selecting Copy or clicking Ctrl+C
4. Paste the results into the Results tab of the DOC-307 Case Chronicle.
 - a. Verify that the value was not a truncation when pasted.
5. Click on the Quant Decisions tab.
 - a. The results will automatically populate in the Quant Decisions tab applicable to that Kit.
6. Enter the following information:
 - a. Batch ID
 - b. Analyst initials
 - c. Date
7. Select the correct kit name from the drop-down list.
8. Review the results for the Calibrator/Positive Control
 - a. The value should be approximately 5 ng/ μ L.
 - b. If the value is significantly above or below the expected value, the information should be used to inform the volume of sample used in the amplification reaction.
9. Review the results of the NTC/Negative Control and Reagent Blanks
 - a. The value should be 0.000.
 - b. If a quantification value is reported in the NTC and in one or more reagent blanks, the quantification should be repeated.
 - c. If a quantification value is reported only in the NTC, further investigation should be performed to identify the possible source of contamination and appropriate corrective steps up to and including repeating the plate should be taken.
 - d. If a quantification value is reported for a reagent blank, that reagent blank should proceed forward to provide further information on the source of the contaminating DNA.
10. Review the quantification values for the samples.
 - a. For samples that are determined to proceed to amplification based on the quantification value being consistent with sample type, sample age, and any previous DNA results for that sample that may be available, refer to AMP-204 Post-Quantification Normalization.



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A handwritten signature in black ink, appearing to read "David E. Walker".

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- b. If additional extractions are possible to increase the quantity of DNA for further testing, resample and re-extract and combine the extracts prior to re-quantifying. Refer to NRM-200 Sample Concentration with GenTegra Tubes.

4. References

N/A

5. Definitions

N/A