



Intermountain Forensics

SOP # XX-###

Revision # ##

Forensic DNA Technical Leader Approval

Issue Date

05/19/20

ABI Quant Studio 5 Maintenance

1. Purpose

This document describes the maintenance procedures for the Quant Studio 5 (ThermoFisher) instrument.

2. Summary

Periodic cleaning is required for the Quant Studio 5.

3. Procedure

Clean the Sample Block:

Perform this procedure to eliminate fluorescent contaminants from the instrument sample block. Contamination is generally evident in failed background calibrations where one or more wells consistently exhibit abnormally high signals.

1. Identify the contaminated wells of the sample block.
2. Prepare the instrument and access the sample block:
 - a. Power off and unplug the instrument, then allow it to cool for 15 minutes.
 - b. Pull the instrument drawer forward to expose the sample block.
3. Rinse the contaminated wells with deionized water.



4. Close the drawer and test the sample block for contamination:
 - a. Push the instrument drawer back into the instrument.
 - b. Plug in, then power on the instrument.
 - c. Perform a background calibration to confirm that you have eliminated the contamination.
5. If the contamination remains:
 - a. Repeat step 2 – step 3.
 - b. Clean the contaminated wells using an ethanol solution.
 - c. Repeat step 3 – step 4 to rinse the sample block with deionized water and to confirm that you have eliminated the contamination.

IMPORTANT! Always use deionized water to rinse wells after cleaning with bleach or ethanol solution.

6. If the contamination still remains:
 - a. Repeat step 2 – step 3.
 - b. Clean the contaminated wells using a 20% bleach solution.
 - c. Repeat step 3 – step 4 to rinse the sample block with deionized water and to confirm that you have eliminated the contamination.



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IMPORTANT! Always use deionized water to rinse wells after cleaning with bleach or ethanol solution.

7. If the contamination continues to remain, contact Support.

Use these cleaning procedures only in conjunction with the "Clean the Sample Block" procedures.

4. *References*

QuantStudio™ 5 Real-Time PCR Instrument (for Human Identification) USER GUIDE

5. *Definitions*

N/A