

Test Item Information Sheet (TIIS)

“RNA Quantification and Purity” Scheme [RNAQ25]

This sheet contains all the information on **RNA Test Items** that you should be aware of to conduct the above mentioned Scheme. **Please read carefully before performing any operation and/or test on the provided samples.**

Test Items Description

- Source material: Jurkat cell line.
- Method of preparation: RNA extracted by a silica-based method.
- Medium: Nuclease-free water.
- Date of preparation and any lot number (if applicable): July-August 2025.
- Biological hazard: The source material is BSL 1.
- Biosafety level: All operations have been conducted in a BSL 2 environment.
- Method used for value assignment: Consensus mean from Participants.
- Homogeneity and Stability information: Homogeneity and stability of the Test Items will be controlled from July to August 2025 to be compliant with the requirements of *The International harmonized protocol for the proficiency testing of analytical chemistry laboratories*, IUPAC technical report.

Instructions to Prepare the Test Items for Testing

- Processing required of Test Item: No processing is required at receipt of Test Item.
- Any storage requirement between receipt and testing date: Store at **-80°C**. Testing should be performed within 1 week of receipt.
- Required temperature to perform the testing: Room temperature (18-24°C).
- Any step required/recommended for testing: Dilution may be required for certain Test Items (this will have to be determined by the participant laboratory).

If you plan to report results under the **Unchained Labs Lunatic** (previously Trinean spectrophotometer with cDROP Software), please ensure you have correct software protocol on your computer. Please contact to request the protocol at support@unchainedlabs.com.

- Any factor that may impact the testing negatively: Prolonged light exposure of reagents; DNA contamination of Test Item; Organic component contamination of Test Item; Prolonged exposure to room temperature of Test Item.

Particular Handling/Safety Requirements

- Potential risks of Test Item: Exempt of infectious risk.
- Individual protection equipment required: Standard laboratory (laboratory coat, gloves).
- In case of puncture or cuts: Wash thoroughly with water and then disinfect during 10 minutes.
- In case of contact with the eye: Wash thoroughly with water or physiologic serum during 5 minutes.
- In case of contact with the mucus membranes and skin: Wash thoroughly with water.
- Measures to take in case of accidental spillage: Use disinfectant and thoroughly clean the effected surface.



- Waste elimination procedures: Waste generated by healthcare activities, to eliminate in incinerable plastic containers.

Schemes Specifications

- For each Test Item (Tube A, Tube B and Tube C): Please measure **RNA concentration (ng/μl)** and **RNA 260/280 ratio** (if your method allows).
- How to test your samples: Please test the Test Items following your **usual routine testing method**.
- You will be asked to report your results under the following methods: **Spectrophotometry, Spectrofluorimetry, Microfluidic Electrophoresis, Lunatic** (previously Trinean spectrophotometer) and **Other**.
- Please be ready to enter the following additional information while reporting your results:
 - Spectrophotometry: Type of instrument, measurement container/format (plastic cuvette, quartz cuvette, microspot, microplate or other).
 - Spectrofluorimetry: Type of instrument, measurement container/format (cuvette, microplate, tube, other), fluorochrome (Ribogreen, Other), wavelength excitation (502 nm, other), wavelength emission (523 nm, other).
 - Microfluidic Electrophoresis: Type of instrument (Agilent Bioanalyzer, Biorad Experion, PerkinElmer Labchip GX, QIAGEN QIAxcel, other), type of chip.
 - Lunatic: Type of container (DropPlate S, DropPlate D+, other).
 - Other: Type of instrument, Method.
 - Please enter information on the dilution used (for each Test Item).
 - Equipment performance verification: Please enter information on the frequency of verification runs and the last verification date and results.

What and How to Submit

- For each Test Item, **you can perform the assay more than once per method** (according to your selected routine method), and submit more than one test results.
- Your results must be submitted online to the PT website <http://biospecimenpt.ibbl.lu/> by employing the login credentials (User email and Password) used to create your account on the aforementioned PT platform.
- Please complete the questionnaire of the RNAQ25 PT scheme as accurately as possible, adding any relevant detail and comment in the appropriate comment section.

Timelines

<i>Results submission</i>	<i>Data analysis & Report preparation</i>	<i>Reports available</i>
17 NOV 2025, <u>latest</u>	20 NOV 2025– 31 JAN 2026	March 2026

In case of doubts in the completion phase, please contact LIH/IBBL at ISBERPT@lih.lu