

Processing Item Information Sheet (PIIS)

“Cell-Free RNA (cfRNA) Extraction from Plasma” Scheme [cfRNA24]

This sheet contains all the information on the **Plasma Processing Item** that you should be aware of to conduct the above mentioned Scheme. **Please read carefully before performing any operation on the provided sample.**

Processing Item Description

- Source material: Human EDTA blood from a healthy donor.
- Preparation: Plasma isolation.
- Date of Preparation: July 2019.
- Testing of Biological Hazard: The Processing Item has been tested negative for HIV (ELISA and PCR), HCV (ELISA and PCR); Syphilis (ELISA), HBsAg (ELISA), HBV (PCR), HAV (PCR), Parvovirus B19 (PCR).
- Biosafety level: All operations have been conducted in a BSL 2 environment.
- Homogeneity and Stability Information: Homogeneity of the Processing Item will be controlled and confirmed from July to August 2024.

Instructions to Prepare the Processing Item for Extraction

- Any storage requirement between receipt and processing date: Store at **-80°C**. cfRNA extraction should be performed within 1 week of receipt.

Particular Handling/Safety Requirements

- Potential risks of Processing Item: Exempt of infectious risk.
- Individual protection equipment required: Standard laboratory equipment (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.

Scheme Specifications

- Please extract **cfRNA** from the Processing Item following your **usual routine cfRNA extraction method**.
- You will be asked to report information under the following scheme: **Cell-Free RNA (cfRNA) Extraction from Plasma**.
- Please be ready to enter the following information:
 - Plasma centrifugation information (centrifugation speed, duration and temperature, brake, simple/double, presence of platelets);
 - Kit used (QIAamp circulating Nucleic Acid kit (Qiagen), miRNeasy mini kit (Q protocol) (Qiagen), miRNeasy serum/plasma kit (Qiagen), miRNeasy serum/plasma advanced kit (Qiagen), ExoRNeasy serum/plasma kit (Qiagen), miRCURY RNA isolation kit biofluids (E protocol) (Exiqon), Nucleospin miRNA plasma kit (Macherey-Nagel), mirVana PARIS kit (Invitrogen), Plasma/serum RNA purification kit (slurry format) (Norgen Biotek),

Plasma/serum RNA purification kit (spin columns) (Norgen Biotek), Direct-zol RNA miniprep (Zymo Research), other);

- Extraction method (salting out, magnetic bead-based, silica membrane-based, trizol, unsure, other);
- Extraction equipment;
- Volume of plasma used (ml);
- Elution buffer composition (elution buffer from kit, water, TE, AE, other) and elution volume (µl);
- Use of DNase;
- Spike-in control;
- RNA carrier.

What to Submit

- Once you have extracted RNA from the plasma (according to your extraction method), you pipet all the extracted RNA in the provided labelled Matrix 0.5 ml. The tube is already labelled with your Laboratory Number and the name of the Scheme (cfRNA24). **Make sure to properly close the tube to avoid evaporation or leakage.**
- IBBL requires a **minimum of 15 µl** of extract to perform the downstream analyses planned.
- As soon as extracted, the RNA tube must be shipped to the following address, by using the courier of your choice:

IBBL, PT Programme
Biorepository – Laura GEORGES
1B Rue Louis Rech
L-3555 Dudelange
LUXEMBOURG
Phone: +352 26970-521
Email: biorepository@ibbl.lu

- The extracted RNA can be temporarily stored at -80°C before shipment. In that case, the extracted RNA must be shipped to IBBL on dry ice.
- Please note that IBBL cannot receive your sample on Saturdays nor Sundays.
- Your data must be submitted online on the PT website <http://biospecimenpt.ibbl.lu/> using the login information (Laboratory Number and Password) provided to you via email after the registration to the “Cell-Free RNA (cfRNA) Extraction from Plasma” Scheme.
- Please complete the questionnaire as accurately as possible, adding any relevant detail and comment in the appropriate section.

Timelines

<i>Shipment of the extracted RNA to IBBL</i>	<i>Data Submission</i>	<i>Downstream analyses & Report preparation</i>	<i>Reports available</i>
Before 10 NOV 2024	17 NOV 2024, latest	20 NOV 2024– 31 JAN 2025	March 2025

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