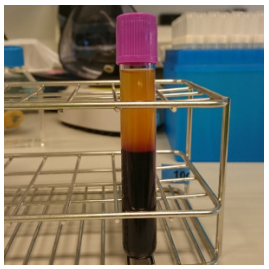
Aug 10, 2020 Version 7

plasma preparation_exRNAQC V.7



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Protocol status: Working
We use this protocol and it's working

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Keywords: plasma, plasma from venous blood draw, venous blood draw, blood

Disclaimer

Abstract

This protocol describes how to prepare plasma from venous blood draw.

Attachments

PDF

plasma preparation.p...

60KB

Guidelines

- In the Center for Medical Genetics Gent (CMGG), plasma preparation is performed in the blood lab. Guidelines on how to handle blood samples and how to work in this lab are described in H5.3-OP2-B1.
- Take pictures (optional) on a white background, upright position

Materials

MATERIALS

- Liquid Nitrogen
- Pipettes
- Safe-Lock cup DNA LoBind 1,5ml PCR clean **Eppendorf Catalog #**A08970
- Cryotube **Thermo Fisher Scientific Catalog #**10674511
- Centrifuge with swinging bucket rotor (centrifugation speed up to 2500 g (rcf)) and buckets for blood collection tubes and conical 15 ml tubes
- Disposable lab coat
- Nitrile powder-free gloves
- Nalgene® 62080-00 VERSI-DRY® Lab Soaker Bench Protector Mat, White Standard Absorbency **Thermo Fisher Scientific Catalog #**NAL-62080-00
- Filter tips
- Racks for the different types of tubes
- Conical tube, 15 ml **greiner bio-one Catalog #**188271

Centrifugation step 1: 20 min at 400 g (rcf)

1
- Invert tubes 5 times before centrifugation
- Spin tubes for 20 min at 400 g (rcf) (without brake), at room temperature. Note time point of start of centrifugation
- Pipette platelet-rich plasma (PRP) carefully into a new collection tube, leave ± 0.5 cm above the buffy coat (do not disturb the buffy coat)
- Invert the PRP tube before aliquoting. Aliquot the PRP into cryovials or LoBind tubes, snap freeze in liquid nitrogen and store at -80 °C (note time point of snap freeze), and/or continue to prepare platelet-poor plasma (PPP)

Centrifugation step 2: 10 min at 800 g (rcf)

2
- Spin the PRP for 10 min at 800 g (rcf) (without brake) to obtain platelet-poor plasma (PPP), at room temperature
- Pipette PPP carefully into a new collection tube, leave ± 0.5 cm above pellet (do not disturb pellet)
- *Optional: If platelets need to be collected, resuspend pellet in remaining volume above pellet, transfer to 1.5 ml tube, and spin again for 10 min at 800 g (rcf) (without brake), remove volume and snap freeze pellet in 1.5 ml tube. Note time point of snap freeze*
- Invert the PPP tube before aliquoting. Aliquot the PPP into cryovials or LoBind tubes, snap freeze in liquid nitrogen and store at -80°C (note time point of snap freeze), and/or continue to prepare platelet-free plasma (PFP)

Centrifugation step 3: 15 min at 2500 g (rcf)

3
- Spin the PPP for 15 min at 2500 g (rcf) (without brake) to obtain platelet-free plasma (PFP), at room temperature
- Pipette PFP carefully into a new collection tube, leave ± 0.5 cm above pellet (do not disturb pellet)
- Aliquot the PFP into cryovials or LoBind tubes, snap freeze in liquid nitrogen and store at -80°C (note time point of snap freeze)