

SOP 3.8.3 Protein Extraction from Cells in Urine

SOP Number: 3.8.3
Version Number 1.0

	Name	Title	Date
Author			
Authoriser			

Effective Date	
Version Number	

Purpose

This SOP describes the procedure for protein extraction from cells in urine.

Responsibility

It is the responsibility of the research laboratory personnel carrying out this procedure to ensure that all steps are completed both competently and safely.

Equipment/reagent requirements

- Cell lysis solution
- Protease inhibitor solution
- A refrigerated centrifuge capable of 12,000g
- A vortex mixer
- -80°C Freezer

Procedure

1. Resuspend the cell pellet from step 4 in SOP 3.8 in Cell Lysis Buffer. The volume of CellLytic™-M lysis/extraction reagent (Sigma Aldrich) to be added to the cells varies according to cell size and protein concentration required. In general: 125µl CellLytic™-M is recommended for 10⁶-10⁷ cells.
2. A commercial protease inhibitor solution (for example P3840 Sigma-Aldrich) may be added to the CellLytic™-M reagent to reach a final concentration of 1X in the buffer.
3. Centrifuge the lysed cells for 15 min at 12,000g at 4°C to pellet the cellular debris.
4. Remove the protein-containing supernatant to a test tube chilled to 4°C and store at -80°C in aliquots using 0.5mL cryostorage tubes.

Change History

SOP Number	Effective Date	Significant Change	Previous SOP No.