Institut für HIV Forschung
SOP#04-01 **(Feb 2017)**

Human Interleukin-2 Reconstitution (IL-2)

I. Purpose

The purpose of this procedure is to reconstitute and properly store human interleukin-2 (IL-2). IL-2 is a secreted cytokine that is important for the proliferation of T and B lymphocytes, which is why this cytokine is used in the culturing of T cell lines or clones.

II. Reagents

Reagent	Vendor	Catalogue #
Human rIL-2 (40ug or $5.2x10^5$ U/vial)	Thermo-Fisher	PHC0027
Sterile PBS	Life Technologies	14190144
Sterile 10mL syringe	Fisher	309604
Sterile 0.45 micron filter	TPP	99745
Sterile 15mL conical tube	TPP	91015
Sterile 0.65mL eppendorf tubes	Fisher	07-200-186

III. Storage

Both the lyophilized powder and the reconstituted aliquots should be stored at –80C long term, but can be kept at -20C for short intervals of time (1-2 weeks).

IV. Reconstitution

1. Take a vial of the lyophilized powder from the –80C freezer and allow it warm to room temperature without the use of artificial heat (approximately 1 hour).
2. Once warmed, spray the vial with 70% ethanol, and place it in the hood for reconstitution.
3. Add 5.2mL of sterile PBS to the vial. Make sure to add the PBS ***very slowly*** to minimize splashing and overflow. Gently mix the vial to ensure the powder is completely dissolved.
4. Transfer the liquid to a sterile 10mL syringe with a sterile 0.45 micron filter on it's end.
5. Slowly, filter into a sterile 15mL conical tube.
6. Aliquot 200µl into 1.7mL screw cap tubes and label "IL-2 100,000 U/mL [date]" on the vial. Store at -80C (should be about 26 tubes total).

NOTE: Since IL-2 will be used in the culturing of cells, it is very important to use sterile technique throughout the entire process to reduce the chance of media contamination.

WHO Conversion Table

Please note that we use the NIBSC calibrated concentration for IL-2. The units assigned are arbitrary and used simply for mass conversion. This is the same concentration used by the NIH AIDS Reagent Program.

$1\mu g = 1.3 \times 10^4$ U

NOTE: Math Overview.

Lyopholized stock is provided at 40µg, which is 5.2 $x10^5$ U/vial. Add 5.2mL PBS for a concentration of 1.0 $x10^5$ U/mL.