SERANA Science for Life	Document ID:	TDS-RLL-001-500ML	Version:	004
	Date of Issue:	02-AUG-2021	Approved by:	Dr. Iman Kamranfar
	Review Date:	02-AUG-2023	Signature:	
	Title:	**TECHNICAL DATA SHEET**		

SPECIMEN

Product Name	**Secoll ™ Lymphocyte Separation Solution**		
Filtration/Treatment	0.1µm sterile filtered		
Product Codes	RLL-001-500ML		
Shelf Life	36 months from DOM		
Storage Temperature	2-25°C (in darkness)		
Shipping Temperature	2-25°C (in darkness)		
Physical and Chemical Analysis	**Method**	**Specifications**	**Units**
Appearance	Visual	Clear colorless solution free from particulate matter	n/a
pH	Electronic pH Meter	6.0 – 9.0	n/a
Osmolality	Osmometer	260 - 340	mOsm/kg
Endotoxin	LAL Kinetic	< 1.0	EU/ml
Density	Mass Balance	1.076 – 1.078	g/ml @ 20°C
Sterility			
Aerobic Bacteria	Internally Validated	Not detected	n/a
Anaerobic Bacteria	Internally Validated	Not detected	n/a
Fungi (Yeast & Mold)	Internally Validated	Not detected	n/a

Product Use: For research use only. Not for use in diagnostic procedures.

Life Technologies™
Your Molecular & Cell Technology Partner

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Secoll™ Protocol of Use

Preparation:

Bring Secoll™ separation solution to room temperature in darkness.

Fill a centrifuge tube with Secoll™ separation solution as follows:

Centrifuge Tube Volume	Secoll™ Volume
15ml	3ml
25ml	10ml
50ml	20ml

The centrifuge tubes are then ready for filling with whole blood or bone marrow aspirate.

Diluting the sample material with balanced salt solution is not required, however, it can help separation in certain circumstances. We recommend a whole blood dilution of 1:2, and bone marrow dilution of 1:4.

Procedure:

1) Carefully load the prepared sample directly from the sampling tube onto the prepared Secoll™ tube in equal volume to the Secoll™ volume. (e.g. Sample Volume = 7ml when Secoll™ Volume = 7ml). Perform this step slowly and constantly so as to not mix the two phases and a sharp border is present.

2) Centrifuge @ RT for 10 minutes at 1000 x g in a swinging bucket rotor. No braking function should be enabled on the centrifuge.

3) After centrifugation the layering should look as follows in fig. 1:

:

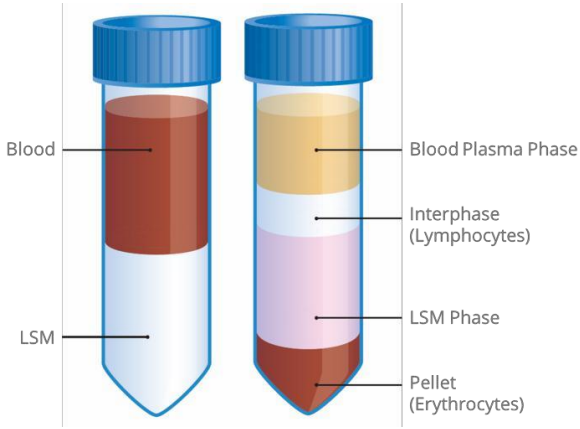

Fig. 1: Blood Separation Tube before (left) and after centrifugation (right).

4) Carefully extract the lymphocytes/PBMCs using a Pasteur pipette.

5) Wash the lymphocytes/PBMCs with 10 ml of PBS, then centrifuge for a further 10 minutes at 250 x g.

6) If required, repeat steps 4 & 5 and resuspend the lymphocytes/PBMCs with 10 ml of PBS.

Reactivity and Stability

The reactivity and stability of Secoll™ are based on its hydroxyl groups and on the glycoside bonds within the sucrose residues. It is stable in alkaline and neutral solutions. At pH values lower than 3, it is rapidly hydrolyzed, especially at elevated temperatures. In neutral solutions Secoll™ can be sterilized by autoclaving at 110°C for 30 minutes, without affecting the reactivity. Avoid heavily oxidizing or reducing substances.