INSTRUCTION FOR USE

Issued March 2013

Emergency phone number: 450-446-2660

Description: **Lymphocyte Separation Medium, Sterile**

Catalog #: **305-010-****

Identity (AS used on label and list)

PRODUCT INFORMATION

LSM is sterile, Iso-osmotic solution with low viscosity designed for the in vitro isolation of Lymphocytes from diluted whole blood.

Description	Catalog No.	Size
LYMPHOCYTE SEPARATION MEDIUM	305-010-CL	500 mL

PRODUCT CHARACTERISTICS

The Lymphocyte Separation Medium is a sterile-filtered density gradient based on the adapted method of isolating lymphocytes using centrifugation techniques by BÆyum. LSM is designed for the simple, rapid isolation of lymphocytes from diluted defibrinated whole blood layered on a solution of sodium metrizoate and dextran or ficoll® and centrifuged at low speeds for 30 minutes.

Differential migration of blood cells through the solution during centrifugation results in the formation of density specific layers. Lymphocytes and other mononuclear cells form a distinct band between the serum and LSM fractions. Lymphocytes are recovered by aspirating the plasma layer and then removing the cells. Excess platelets, LSM, and plasma can then be removed by cells washing. For best results, use blood drawn less than two hours before. Do not use blood more than 24 hours from when it was drawn.

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INSTRUCTION FOR USE

1. Allow the LSM to equilibrate to room temperature and thoroughly mix by gently inverting the bottle.
2. Aseptically transfer 3 mL of the LSM to a sterile 15 mL centrifuge tube.
3. Mix 2 mL of defibrinated or heparinized blood with 2 mL of physiological saline or balanced salt solution.
4. Carefully layer the diluted blood over 3 mL of LSM in a sterile 15 mL centrifuge tube creating a sharp interface. –DO NOT MIX THE LAYERS-
5. Centrifuge the tube for 15 to 30 minutes at 400 g. Aspirate top layer of clear plasma to within 2-3 mm above the lymphocyte layer.
6. Aspirate lymphocyte layer plus half of the LSM layer below it and transfer to a centrifuge tube. Add equal volume of balanced salt solution (cat. No. 311-011 or 311-425) to lymphocyte layer and centrifuge for 10 minutes at room temperature at 160-260 g to sediment the cells without damage.
7. Wash cells again and re-suspend in appropriate medium for your application.

Figure 1. Separation of mononuclear cells from whole blood.