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Life Technologies™
Your Molecular & Cell Technology Partner

EZ Lympho-Sep™ Lymphocyte Separation Tubes

Unique density gradient separation of lymphocytes from whole blood

Density gradient centrifugation of whole blood on a polysucrose - sodium metrizoate medium is the method of choice for isolation of lymphocytes. The success of the procedure, i.e. the recovery of viable lymphocytes with the lowest proportion of contaminating granulocytes and erythrocytes, depends to a large extent on the careful layering of the blood sample onto the separation medium and the maintenance of a sharp interface between the two solutions prior to centrifugation.

The EZ Lympho-Sep™ system allows the blood sample to be poured directly into the centrifuge tube with no special precautions required to prevent disruption of the polysucrose - sodium metrizoate layer. Thus, a large number of samples may be handled at the same time. The mechanism also reduces the length of centrifugation time required for separation of the lymphocytes.

Features:

- Ready-to-use, sterile.
- Safe method, minimum contact with biological fluids.
- Time saver, quick and easy sample filling.
- Maximum yield of viable mononuclear cells.
- A large number of samples may be handled at the same time

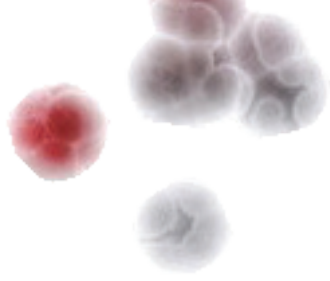
EZ Lympho-Sep™ tubes are manufactured with either 2 or 3 ml separation medium in 15 ml centrifuge tubes or with either 10 or 15 ml separation medium in 50 ml centrifuge tubes. For laboratories that have stocks of Ficoll or Lymphoprep, the tubes can be ordered empty for charging with separation medium immediately before use.

We offer four different sizes:

Catalogue No.	Centrifuge Tube	Separation Medium	Packaging
01-899-U02	15ml	2ml	30 Tubes/Box
01-899-U04	15ml	3ml	30 Tubes/Box
01-899-U10	50ml	10ml	18 Tubes/Box
01-899-U16	50ml	15ml	18 Tubes/Box

For research use only





Preparation of separation tubes is time consuming and their application is technically difficult. The EZ Lympho-Sep™ provide, a competitively priced ready-for-use alternative to the "home made" blood separation tube.

Principal areas requiring lymphocyte assessment

- The determination of malignant proliferation
- Suspected deficiency of the immune system
- Wide variety of acute and chronic diseases associated with evidence of some alteration in the immune system

Isolation of lymphocytes from peripheral blood

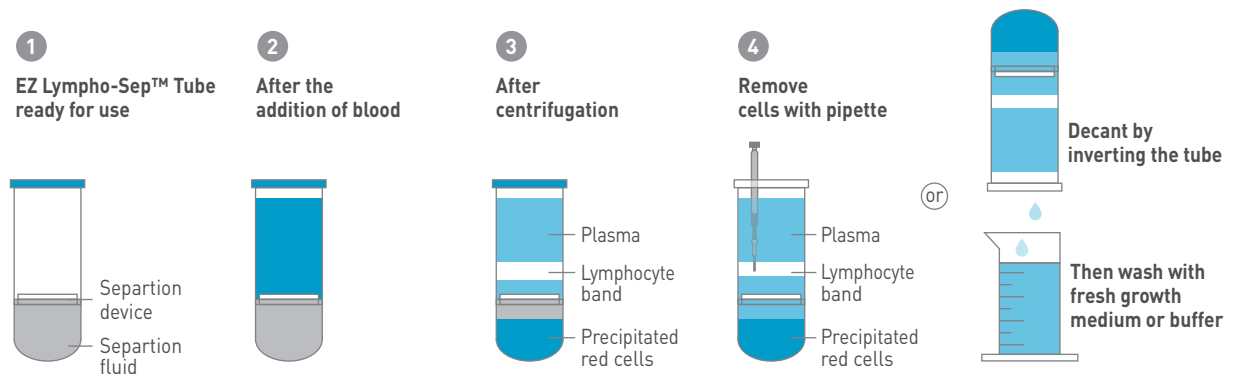
The most commonly used procedure is for separation of the mononuclear cells by density gradient centrifugation of whole blood. This procedure is performed by carefully layering diluted whole blood over a polysucrose - sodium metrizoate medium (Ficoll-Paque, Lymphoprep, Histopaque, etc). The diluted blood is added to the gradient by gently pipetting with the tubes held at an angle or by pouring the blood onto the separation medium. This latter method requires considerable practice and is not recommended for beginners. To obtain good separations, it is critical that a clear separation be kept between the dense polysucrose - metrizoate and the blood layer before centrifugation.

Due to the extreme care that must be exercised when pipetting blood on to the separation medium, alternative methods have been devised. In one such procedure a sample of the diluted blood is placed in a centrifuge tube and Ficoll-Paque (or equivalent separation medium with a density of 1.077) is added by being underlayered under the blood. This method creates cleaner interfaces than those obtained when blood is layered over the Ficoll, since there is less disturbance of the surface of the Ficoll and less mixing.

Ready-for-use cell separation tubes

The heart of the EZ Lympho-Sep™ is a plastic insert that allows the blood sample to be poured directly into the tube alleviating the need for slow and careful addition of the blood. Secondly, a one-way feature of the insert allows passage of materials during the centrifugation step but prevents the flow of the separation medium during shipping. After centrifugation, if desired, the upper lymphocyte-containing fraction may be poured off without risk of contamination from the erythrocytes, which are trapped under the insert.

The EZ Lympho-Sep™ system



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