Product datasheet

LymphoPrep (1x250 ml)

Short overview

Cat. No.	1856-1
Quantity	1x250 ml

Product description

Product description	Lymphoprep is a ready-made, sterile and endotoxin tested solution for the isolation of pure lymphocyte suspensions. The solution contains sodium diatrizoate and polysaccharide.
Density	1.077 ± 0.001 g/ml
Composition	9.1% (w/v) Sodium Diatrizoate, 5.7% (w/v) Polysaccharide
Osmolality	290 ± 15 mOsm
Endotoxin	< 1.0 EU/ml
Stabilty and storage	Lymphoprep is stable for 3 years provided the solution is kept sterile and protected from light. Prolonged exposure to direct sunlight leads to release of iodine from the sodium diatrizoate molecule. This effect is negligible when working with this solution on a day to day basis. Lymphoprep should be stored at +4°C to +30°C.
Intended use	Research use only

Background

A simple and effective method for the isolation of mononuclear cells from human blood was reported by Dr. Arne Boyum in 1968. For more than 35 years a commercial medium known as LymphoprepTM has been widely used for isolating these cells.

Mononuclear cells (monocytes and lymphocytes) have a lower buoyant density than the erythrocytes and the polymorphonuclear (PMN) leukocytes (granulocytes). The vast majority of mononuclear cells have densities below 1.077 g/ml. These cells can therefore be isolated by centrifugation on an isoosmotic medium with a density of 1.077 g/ml, which allows the erythrocytes and the PMNs to sediment through the medium while retaining the mononuclear cells at the sample/medium interface.

The described method is rapid, simple and reliable and gives excellent results with blood samples from normal individuals and patients.

To obtain the maximum yield it is important that the blood sample is diluted 1:1 with physiological saline before being applied to the gradient. The contamination of erythrocytes in the mononuclear cell suspension is usually between 3-10% of the total cell number.

Some immature PMNs may band with the lymphocytes during intense immunosuppressive therapy. When heparinised blood is used, it is essential to remove most of the platelets, in order to avoid inhibition in the cytotoxicity test. Each batch of Lymphoprep is checked on the level of endotoxins using a specific LAL test. The goal is to provide batches with an endotoxin level lower or equal to 0.13 IU/ml.

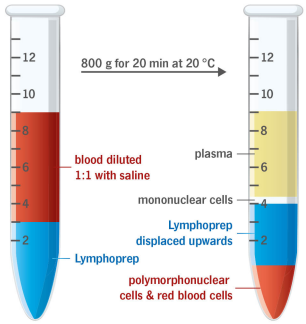
For every batch produced a Certificate of Analysis showing the actual values of density, osmolality and endotoxins is made available upon request. We also claim sterility according to Ph.Eur.

Lymphoprep is manufactured, packed and released in compliance with GMP and ISO 13485.

LymphoprepTM can be used for the preparation of pure lymphocyte suspensions for tissue typing, antilymphocyte sera and immunological research. Thorsby and Brattelie used this technique with only slight modifications in the preparation of pure lymphocyte suspensions for cytotoxicity tests and lymphocyte cultures.

Product images

LymphoPrep (1x250 ml)



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References

Publication	Species	Application
Hust, M. et al. Enrichment of open reading frames presented on bacteriophage M13 using Hyperphage. Biotechniques 41, 335â€“342 (2006).		