

## DENSITY GRADIENT MEDIA

### NycoPrep™ 1.077 Isolation of human mononuclear cells

In 1983 Dr. Arne Bøyum devised a new separation medium for the density barrier isolation of human mononuclear cells. This medium is based on Nycodenz®, a tri-iodinated derivative of benzoic acid with three aliphatic, highly hydrophilic side chains with a molecular weight of 821. In NycoPrep™ 1.077, Nycodenz® replaces sodium diatrizoate of the Ficoll/Hypaque method and a buffered sodium chloride solution maintains the correct osmotic environment. Importantly no Ficoll or other polysaccharide is added. Thus the components of NycoPrep™ 1.077 are unlikely to mask receptors or other marker molecules on the surface of lymphocytes. Mitogen stimulation of the mononuclear cells recovered is found to give results similar to or better than, cells isolated by the Ficoll/Hypaque method.

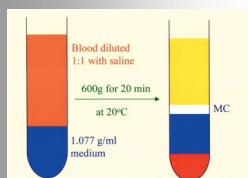
Using NycoPrep™ 1.077, the erythrocytes do not form such a compact pellet and if resuspended, appear as single, unclumped cells of good morphological appearance.

**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.



**Web:**

[www.axis-shield-density-gradient-media.com](http://www.axis-shield-density-gradient-media.com)

## AXIS-SHIELD

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**NycoPrep™ 1.077** is a ready-made, sterile and endotoxin tested solution with the following specifications:

Nycodenz: 14.1% (w/v)

NaCl: 0.44% (w/v)

Tricine/NaOH, pH 7.0: 5mM

Density:  $1.077 \pm 0.001$  g/ml

Osmolality:  $295 \pm 15$  mOsm

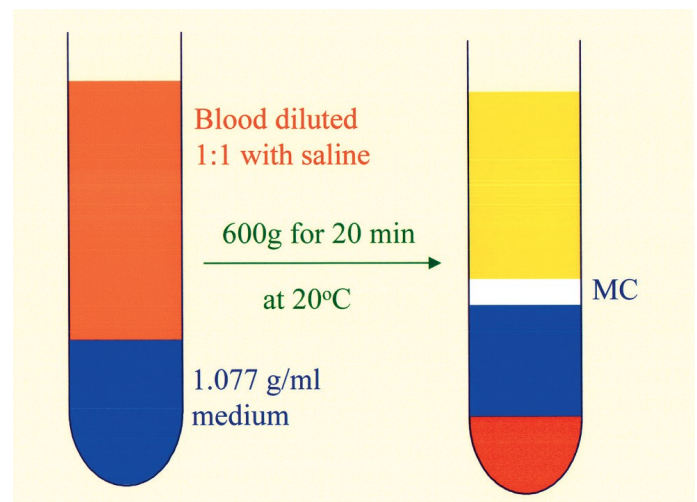
Endotoxins:  $< 1.0$  EU/ml

Each batch of NycoPrep 1.077™ is checked on the level of endotoxins using a specific LAL test. Our goal is to produce batches with an endotoxin level lower or equal to 0.13 EU/ml.

For every batch produced a Certificate of Analysis showing the actual values of density, osmolality and endotoxins is made available at [www.axis-shield-density-gradient-media.com](http://www.axis-shield-density-gradient-media.com). We also claim sterility according to Ph.Eur.

**NycoPrep™ 1.077** is manufactured, packed and released in compliance with:

1. Current EU Guide to Good Manufacturing Practice
2. Fresenius Kabi AS Quality System
3. Fresenius Kabi AS Manufacturing Licence
4. Axis-Shield PoC Quality System



**NycoPrep™ 1.077** can be used for the preparation of pure lymphocyte suspensions for tissue typing, antilymphocyte sera and immunological research.

The described method has found to be rapid, simple and reliable and gives excellent results with blood samples from normal individuals and patients.

**NycoPrep 1.077™** is supplied as a sterile solution in the following package size:

Prod. no. 1114550      4x250ml

Bøyum, A. (1983)

*In Iodinated Gradient Media, a practical approach* (ed. D. Rickwood). 147-171, IRL Press

*Ficoll is a trademark of GE Healthcare companies*