# Lymphocytes: isolated simple and effective

Pancoll separating solutions from PAN-Biotech contain a polysaccharide with a molecular weight of 400,000 daltons. The hydrophilic polymer allows production of an aqueous solutions for cell separation with a density of up to 1.1 g/ml. PAN-Biotech offers a variety of ready-to-use products with a density 1.063 g/ml up to 1.091 g/ml for a very wide range of cell separation applications.

Product	Density [g/mL]
Pancoll human	1.077
Pancoll human	1.077
Pancoll human	1.100
Pancoll monocytes	1.068
Pancoll platelets	1.063
Pancoll mouse	1.086
Pancoll rat	1.091



### Ready-to-use packaging

- less risk of contamination
- less time consumption
- no sampling needed
- no diluting of the blood needed

### Typical results using Pancoll

Lymphocytes	60 ± 20 % 95 ± 5 %	yield of Lymphocytes from original blood samples of the Lymphocyte fraction are mononuclear Leukocytes
	> 90 %	live cells (trypan blue-exclusion)
Other cells	$3\pm2\%$	Granulocytes
	5 ± 2 %	Erythrocytes
	< 0.5 %	total number of platelets of the original blood sample









## **Pancoll**



### Benefit from Pancoll

- Pancoll is able to form a density gradient covering the desired range
- The solution is not too viscous at a high density
- Pancoll does not cause functional or morphological changes in biological materials
- Pancoll does not permeate biological membranes

#### How to choose

The density is the key parameter to choose the appropriate solution for the target fraction. Taking human blood as an example, in case Pancoll human 1.077 is used, all fractions with higher densities (as indicated in the table, which are Basophiles, Neutrophiles, Eosinophiles and Erythrocytes) will migrate to the bottom of the centrifugation tube. In this case, the purified fraction contains concentrated Lymphocytes, Monocytes and Thrombocytes, also including trace of Basophiles due to its density range. Accordingly Pancoll human 1.068 will help you isolate Monocytes and Thrombocytes.

Please take notice that the densities of blood fractions and osmolarities are different among species. Therefore these parameters are optimized in Pancoll rat and Pancoll mouse correspondingly.

The standard endotoxin level in Pancoll solution is lower than 0.3 EU/mL. We also offer Pancoll with ultra low endotoxin (< 0.1 EU/mL; Pancoll pro)

Cell Fraction	Density [g/mL]
Thrombocytes	1.040 1.060
Monocytes	1.059 1.068
Lymphocytes	1.066 1.077
Basophiles	1.075 1.081
Neutrophiles	1.080 1.099
Eosinophiles	1.088 1.096
Erythrocytes	1.090 1.110







