

Easycoll

The basis of Easycoll is silica gel particles, coated with PVP (polyvinyl pyrrolidone). Biochrom AG ready-to-use preparations are already adjusted to physiological values of osmolality and pH. Any de-

sired densities from Easycoll (cat. no. L 6143/5) can conveniently be prepared with PBS (cat. no. L 1825).

Product	Cat. No.	Unit
Easycoll, density 1.124 g/ml	L 6143	100 ml
isotone	L 6145	500 ml
Storage temperature: +2 – +8 °C		

Production of Easycoll with different densities

The ready-to-use separating solution Easycoll is already adjusted to physiological conditions of osmolality and pH value. But you can also adjust a required density yourself by diluting Easycoll correspondingly.

$$\text{Vol. \% Easycoll (1.124 g/ml)} = \frac{D \text{ (g/ml)} - 1.005}{1.19} \times 10^3$$

The table below shows an example for different densities. All amounts are given for a temperature of +20 °C. Only PBS w/o Ca²⁺, Mg²⁺ is suitable, since these ions might influence agglomeration and hence separation of cell clusters.

Tab. 37: Instruction how to dilute the stock solution of Easycoll (density 1.124 g/ml; cat. no. L 6143/L 6145) with PBS (cat. no. L 1825/0)

Desired density (g/ml)	Easycoll (ml)	PBS (ml)
1.063	48.74	51.26
1.068	52.94	47.06
1.077	60.50	39.50
1.100	79.83	20.17
1.113	90.76	9.24

Preparation of solutions with other densities can be made by isoosmolar dilution according to the following formula:

$V [\%] = \frac{(D' - D) \times 10^2}{D'' - D}$	<p>D' required final density D'' high starting density D density of the isoosmotic dilution solution (g/ml) V % volume percent of the starting solution with high density</p>
---	--

For the dilution we recommend the use of PBS without Ca²⁺, Mg²⁺, since both ions can influence the agglomeration of cells and consequently cell separation.

Separating mononuclear cells (lymphocytes and monocytes) from whole human blood using Easycoll

1. Put 6 ml of Easycoll (1.077 g/ml) into a centrifugal tube of 25 ml.
2. Dilute heparinized whole blood (25 U/ml) by an equal volume of culture medium or physiological saline.
3. Carefully place diluted whole blood on Easycoll (up to 20 ml per tube) and centrifuge at 400xg for 30 min at room temperature.
4. Mononuclear cells are readily visible as a white stratum between plasma and Easycoll, erythrocytes together with granulocytes are found in the sediment.
5. Mononuclear cells are harvested with a Pasteur's pipette.
6. Cell suspension is diluted with an equal volume of culture medium or saline, well mixed and washed 2 or 3 times in culture medium (250xg for 10 min at +2 – +8 °C).

Our recommendations: Media from Biochrom AG – suitable for lymphocyte culture

- RPMI 1640, without L-glutamine (cat. no. F 1215)
- RPMI 1640, with HEPES, without L-glutamine (cat. no. F 1235)
- RPMI 1640 with NaHCO₃, with HEPES, with NaCl, with stable glutamine (cat. no. FG 1385)
- VLE RPMI 1640, without L-glutamine (cat. no. F 1415)
- VLE RPMI 1640, with stable glutamine (cat. no. FG 1415)
- Medium 199 with Earle's salts, with HEPES (cat. no. F 0665)

SERA

MEDIA

SEPARATING
SOLUTIONSBUFFERS AND
SOLUTIONSULTRA PURE
WATER

ANTIBIOTICS

ENZYMES

CELL CULTURE
REAGENTSCELL CULTURE
DIAGNOSTICSCYTOKINES AND
GROWTH FACTORSMYCOPLASMA
REAGENTSCELL ATTACH-
MENT FACTORSINDUSTRIAL
CELL CULTURE