

# EasySep™ Direct

Cell Isolation from Whole Blood in 20 Minutes

Fast & Easy

Cell Isolation

## Isolate Cells Directly from Whole Blood In As Little As 20 Minutes

Isolate highly purified cells straight from whole blood with EasySep™ Direct, a new product that immunomagnetically depletes red blood cells and unwanted cells in a single step without density gradient centrifugation, RBC lysis or other pre-processing steps that can alter cellular function or increase cell isolation time. Isolated cells are untouched and highly purified (Table 1), making them ideal for downstream applications such as gene expression analysis, functional assays or flow cytometry.

Individual samples of 0.5–30 mL can be processed in as little as 20 minutes. To isolate cells from up to 16 samples simultaneously, combine EasySep™ Direct with the new EasyEights™ EasySep™ Magnet.

### EasySep™ Direct Performance

**TABLE 1.** Typical purities for specific cell types isolated using EasySep™ Direct.

CELL TYPE	TYPICAL PURITY	CATALOG #
T Cells	95.3 ± 1.4%	19661
CD4 <sup>+</sup> T Cells	93.6 ± 2.5%	19662
CD8 <sup>+</sup> T Cells	82.4 ± 4.9%	19663
B Cells	95.3 ± 2.7%	19674
Naïve B Cells	91.8 ± 3.6%	19264
B-CLL Cells	87.0 ± 7.6%*	19664
NK Cells	90.4 ± 4.0%	19665
Total Lymphocytes	96.7 ± 1.5%	19655
Monocytes	82.2 ± 8.4%	19669
Neutrophils	97.3 ± 1.4%	19666
Granulocytes	98.4 ± 1.5%	19659
Circulating Tumor Cells (CTC's)	2.9 - 3.2 Log Depletion	19657

\*Data from normal, healthy donors. B cell purity expected to be higher when working with B-CLL samples.

### Why Use EasySep™ Direct?

- 99.9% RBC depletion without the need for lysis or centrifugation
- Fast, easy-to-use and column-free
- Target cells are highly purified and immediately available for downstream applications

For more information on EasySep™ Direct, visit [www.EasySepDirect.com](http://www.EasySepDirect.com).



### VIDEO

Introduction to EasySep™ Direct  
[www.stemcell.com/EasySepDirect](http://www.stemcell.com/EasySepDirect)

# EasySep™ Direct

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## Typical EasySep™ Direct Protocol

1

Add EasySep™ Direct Isolation Cocktail and EasySep™ Direct RapidSpheres™ to whole blood

2

Place tube in EasySep™ Magnet and incubate for 5 minutes\*

3

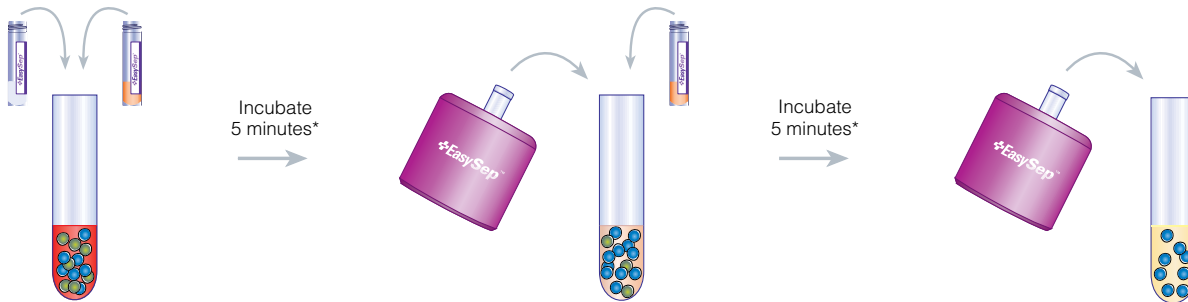
Pour off desired fraction into a new tube and add EasySep™ Direct RapidSpheres™ to enriched cells

4

Place tube in EasySep™ Magnet and incubate for 5 minutes\*

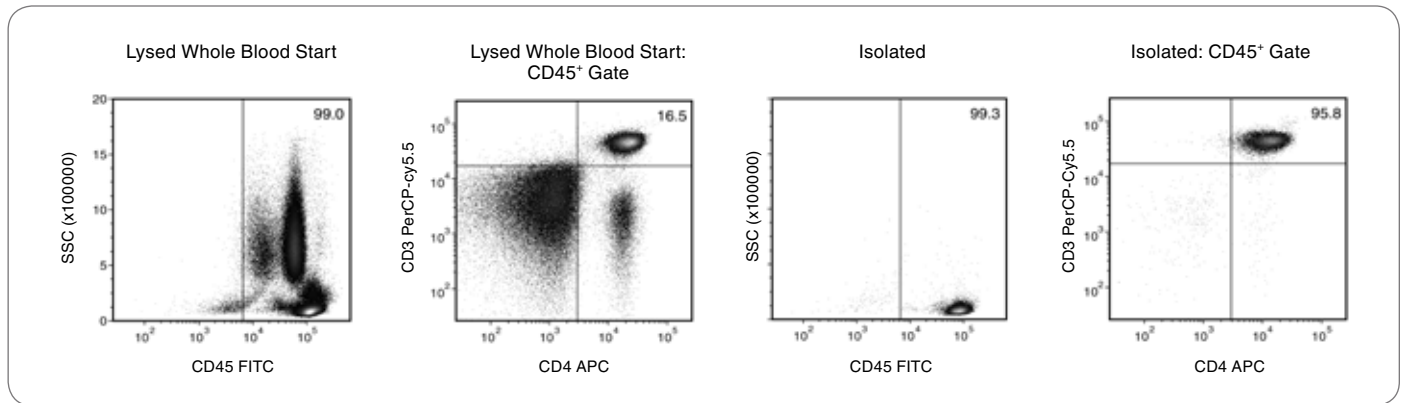
5

Pour off desired fraction into a new tube



\*Times are typical for EasySep™ Direct kits. Times for each kit will vary depending on the exact isolation protocol.

20 Minutes



### Typical EasySep™ Direct CD4<sup>+</sup> T Cell Isolation Profile

Starting with human whole blood from normal healthy donors, the typical CD4<sup>+</sup> T cell (CD3<sup>+</sup>CD4<sup>+</sup>) content of the isolated fraction is  $93.6 \pm 2.5\%$  (gated on CD45) or  $93.1 \pm 2.5\%$  (not gated on CD45). In the above example, the CD4<sup>+</sup> T cell (CD3<sup>+</sup>CD4<sup>+</sup>) content of the lysed whole blood start sample and non-lysed final isolated fraction is 16.5% and 95.8% (gated on CD45), respectively, or 16.3% and 95.1% (not gated on CD45), respectively. The starting frequency of CD4<sup>+</sup> T cells in the non-lysed whole blood start sample is 0.016% (data not shown).

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