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Product Information

Human Peripheral Blood CD34+ Cells

Catalog Number	10HU-102	Cell Number	0.2 million cells/vial 0.5 million cells/vial
Species	*Homo sapiens*	Storage Temperature	Liquid Nitrogen

Description

CD34, a transmembrane glycoprotein expressed on the surface of hematopoietic progenitor cells and small blood vessel endothelial cells, is regarded as a marker of hematopoietic stem cells (HSC) and hematopoietic progenitor cells [1]. CD34+ cells have been shown to possess colony-forming potential in short-term assays, maintain long-term colony-forming potential in *in vitro* cultures and allow the expression and differentiation of blood cells from different hematopoietic lineages in *in vivo* models [2]. The CD34+ Progenitor Cells contain two main cellular subpopulations, hematopoietic and endothelial progenitor cells. Therefore, CD34+ Progenitor Cells are suitable for a series of studies, e.g. directed differentiation into more committed types of blood cells and endothelial lineages.

iXCells Biotechnologies offers CD34+ Progenitor Cells from the peripheral blood of healthy donors. These cells are positively isolated using a direct immunomagnetic CD34 MicroBead labeling system. > 90% of the cells are CD34+ as showed by flow cytometric analysis of iXCells CD34+ Progenitor Cells.

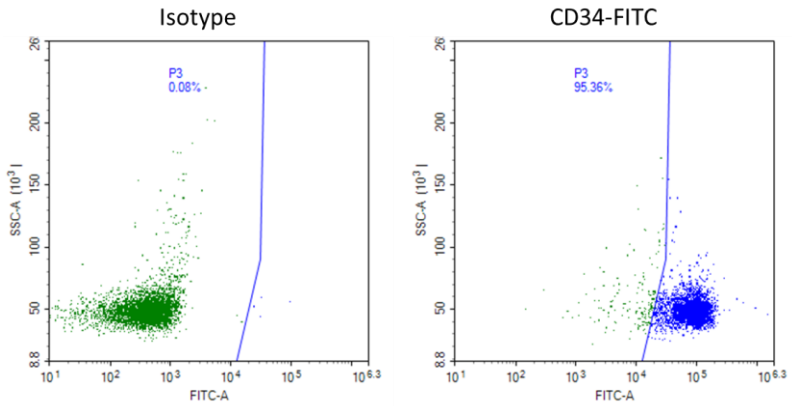

Figure 1: The representative flow cytometry analysis result of Human Peripheral Blood CD34+ Cells.

Product Details

Tissue	Human peripheral blood
Package Size	0.2 million cells/vial; 0.5 million cells/vial
Passage Number	P0
Shipped	Cryopreserved
Storage	Liquid nitrogen
Growth Properties	Suspension
Media	Blood Cell Culture Medium (Cat # MD-0007)

Protocols

Thawing of Frozen Cells

1. Upon receipt of the frozen Human Peripheral Blood CD34+ Cells, it is recommended to thaw the cells and initiate the culture immediately in order to retain the highest cell viability.
2. To thaw the cells, put the vial in 37°C water bath with gentle agitation for 1-2 minutes. Keep the cap out of water to minimize the risk of contamination.
3. Pipette the cells into a 15 mL conical tube with 5 mL fresh **Blood Cell Culture Medium** (Cat # MD-0007).
4. Centrifuge at 400-450 g for 5 minutes under room temperature.
5. Remove the supernatant and cell is ready for downstream applications.

Safety Precaution: *it is highly recommended that protective gloves and clothing should be used when handling frozen vials.*

Reference

[1] Julie S. Nielsen, Kelly M. McNagny (2008). “Novel functions of the CD34 family.” Journal of Cell Science 121, 3683-3692.

[2] M Engelhardt, M Lu¨bbert and Y Guo. (2002). “CD34+ or CD34− : which is the more primitive?.” Leukemia, 16:1603-1608.

Disclaimers