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Product Information

Human Peripheral Blood CD19+ B Cells (Positive Selection)

Catalog Number	10HU-026	Cell Number	5 x 10^6 cells/vial 1 x 10^7 cells/vial
Species	*Homo sapiens*	Storage Temperature	Liquid Nitrogen

Description

B cells, also known as B lymphocytes, are a subtype of lymphocyte in white blood cells [1]. They play a critical role in the humoral immunity component of the adaptive immune system by secreting antibodies[1]. They also function in immune system as antigen presentation cells and by secretion of cytokines[1].

CD19 (Cluster of Differentiation 19) is an important surface marker for B cells from earliest recognizable B-lineage cells during development to B-cell blasts but is lost on maturation to plasma cells. CD19 primarily acts as a B cell co-receptor in conjunction with CD21 [2] and CD81. Upon activation, the cytoplasmic tail of CD19 becomes phosphorylated, which leads to binding by Src-family kinases and recruitment of PI-3 kinase.

iXCells Biotechnologies offers CD19+ B Cells isolated from normal human peripheral blood mononuclear cells (PBMCs) using positive immunomagnetic selection. > 90% of the cells are CD19+ as showed by flow cytometric analysis (Figure 1).

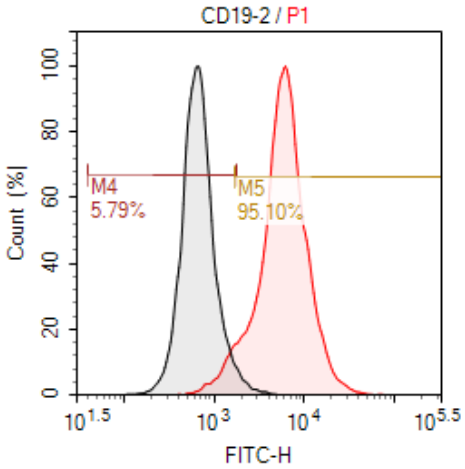

Figure 1. Flow cytometric analysis showed that >90% cells are CD19 positive.

Product Details

Tissue	Normal human peripheral blood
Package Size	5 x10^6 cells/vial
Passage Number	P0
Purity	> 90%
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 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.*

References

[1] Murphy, Kenneth. 2012. Janeway's Immunobiology 8th Edition. New York, NY: Garland Science.

[2] Bradbury LE, Kansas GS, Levy S, Evans RL, and Tedder TF. "The CD19/CD21 signal transducing complex of human B lymphocytes includes the target of antiproliferative antibody-1 and Leu-13 molecules". Journal of Immunology 1992; 149 (9):2841-2850.

Disclaimers

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