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Product Information

Human Peripheral Blood CD4+ Helper T Cells – Untouched by negative selection

Catalog Number	10HU-023N	Cell Number	1.0 x 10^7 cells/vial
Species	*Homo sapiens*	Storage Temperature	Liquid Nitrogen

Description

The CD4+ T cells, also known as T helper cells (T_h cells), are a type of T cells that play an important role in the immune system, particularly in the adaptive immune system [1]. CD4+ T cells can regulate immune response through different cytokines secreted [2]. They are essential in B cell antibody class switching, in the activation and growth of cytotoxic T cells, and in maximizing bactericidal activity of phagocytes such as macrophages.

Considering the diverse and important role CD4+ T cells play in the immune system, it is not surprising that these cells often influence the immune response against disease. CD4+ T cells have been involved in hypersensitivity and as the main target cells of HIV pathogenesis.

iXCells Biotechnologies offers CD4+ T Cells isolated from normal human peripheral blood mononuclear cells (PBMCs) using negative immunomagnetic selection. > 90% of the cells are CD4+ as showed by flow cytometric analysis.

Product Details

Tissue	Normal human peripheral blood
Package Size	1.0x10^7 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 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] Hu, J.; Paul, W. E. (2008). "CD4 T cells: Fates, functions, and faults". *Blood* **112** (5): 1557.

[2] Toscano MA, Bianco GA, Ilarregui JM, Croci DO, Correale J, Hernandez JD, Zwirner NW, Poirier F, Riley EM, Baum LG, Rabinovich GA. (2007). "Differential glycosylation of TH1, TH2 and TH-17 effector cells selectively regulates susceptibility to cell death". *Nat Immunol* (8): 825–34.

Disclaimers

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