

14-1017: Human Peripheral Blood Monocyte-Derived Immature Dendritic Cells(Discontinued)

Description

Dendritic cells (DCs) form a critical interface between innate and adaptive immunity. DCs continuously sample their environment for antigens by means of endocytosis. Referred to as an antigen-presenting cell (APC), DCs capture, process and present these antigens to naïve T-helper cells to initiate an immune response. There is great heterogeneity in DC phenotypes due to their stage of differentiation or according to their response and interaction with cytokines and/or growth factors in their microenvironment. This can make isolating a specific subset of DCs challenging. Additionally, each subset is rare in number, compounding the difficulty in isolating these cells. Culturing of CD14⁺ monocytes in the presence of specific growth factors and cytokines can induce differentiation into immature DCs (iDC), known as monocyte-derived immature dendritic cells (MoDCs). Cultured immature dendritic cells remove the phenotype heterogeneity issue as well as the rarity of these cells.

Human peripheral blood monocyte-derived immature dendritic cells are derived from negatively selected monocytes. Non-monocytes are labeled and depleted from the peripheral blood mononuclear cell population using immunomagnetic particles leaving purified, untouched monocytes. Untouched monocytes are cultured for 4-5 days with 10% FBS in the presence of GM-CSF and IL-4. After culture, cells are checked for the expression of CD11c, HLA-DR, and CD83 and the lack of CD14 expression by flow cytometry.

Cells were obtained using Institutional Review Board (IRB) approved consent forms and protocols.

Product Info

Amount :	1 Vial
Content :	Each cryopreserved vial contains 1.5 million cells. Preserved in CryoStor™ CS10 (10% DMSO)
Storage condition :	Immediately upon receipt, store in liquid nitrogen.

Application Note

LIMITED USE RESTRICTIONS:

THIS PRODUCT IS SOLELY FOR IN VITRO RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

By use of this product, user agrees to be bound by the terms of this limited use statement.

This product is solely for Internal Research Purposes and not for Commercial Purposes. Commercial Purposes include, but are not limited to (1) use of the cell line in manufacturing; (2) use of the cell line to provide a service, information or data; (3) use of the cell line for therapeutic, diagnostic or prophylactic purposes; or (4) resale of the cell line whether or not such cell lines are resold for use in research.

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