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MacroCargo™ Human PBMC-derived Macrophages with pDNA encoding IL-17b (Nanoparticle System, Magnetic cationic liposomes)

Cat. No.: MTS-1222-YF22

This product is for research use only and is not intended for diagnostic use.

Cell Properties

Product Overview	As a therapeutic tool, macrophage cell has a great capacity for delivering cargos because of their intrinsic characteristics. This product is engineered Human PBMC-derived Macrophages carried with pDNA encoding IL-17b by Nanoparticle System-Magnetic cationic liposomes. MacroCargo™ products aim to improve the macrophage function and delivery of specific cargos. We also provide custom macrophage delivery systems based on your specific requirements.
Cell Name	PBMC-derived Macrophages
Cell Type	Primary Cell
Cell Species	Human
Cell Background	Macrophages are specialised cells involved in the detection, phagocytosis and destruction of bacteria and other harmful organisms. In addition, they can also present antigens to T cells and initiate inflammation by releasing molecules (known as cytokines) that activate other cells. Furthermore, macrophages are able to cross the biological barriers, penetrate into tumors, and accumulate particularly in hypoxic and poorly vascularized portions of a tumor.

Cargo Properties

Cargo Type	Cytokine
Specific Cargo	pDNA encoding IL-17b
Cargo Common Name	IL17B
Cargo Alternative Names	NIRF; IL-20; IL-17B; ZCYTO7
Cargo Full Name	Interleukin 17B
Introduction	The protein encoded by this gene is a T cell-derived cytokine that shares sequence similarity with IL17. This cytokine was reported to stimulate the release of TNF alpha (TNF) and IL1 beta (IL1B) from a monocytic cell line. Immunohistochemical analysis of several nerve tissues indicated that this cytokine is primarily localized to neuronal cell bodies. Alternative splicing results in multiple splice variants.

UniprotID	Q9UHF5
GeneID	27190
Cargo Delivery System Type	Nanoparticle System
Cargo Delivery Approach	Magnetic cationic liposomes
Nanoparticle Component	DOTAP, DSPC, cholesterol, iron oxide (II, III).

Product Properties

Applications	Improve the delivery of macrophages to tumors and its therapeutic efficacy against inflammatory diseases
Mycoplasma Testing	Negative
Sterility Testing	Negative
Shipping	Dry ice
Storage	Frozen cells should be stored in a liquid nitrogen tank (-150°C~-190°C) for long term.
Handling Notes	Frozen cells should be thawed immediately upon receipt and grown according to handling procedure to ensure cell viability and proper assay performance.Note: Do not freeze the cells upon receipt as it may result in irreversible damage to the cell line. Disclaimer: We cannot guarantee cell viability if the cells are not thawed immediately upon receipt and grown according to handling procedure.
Restriction	Research use only