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MacroCargo™ Human PBMC-derived Monocytes with Anti-CSF-1 antibody (Viral System, Lentivirus)

Cat. No.: MTS-1222-YF184

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 Monocytes carried with Anti-CSF-1 antibody by Viral System-Lentivirus. 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 Monocytes
Cell Type	Primary Cell
Cell Species	Human
Cell Background	Monocytes express various receptors, which monitor and sense environmental changes. Monocytes are highly plastic and heterogeneous, and change their functional phenotype in response to environmental stimulation. Evidence from murine and human studies has suggested that monocytosis can be an indicator of various inflammatory diseases. Monocytes can differentiate into inflammatory or anti-inflammatory subsets. Upon tissue damage or infection, monocytes are rapidly recruited to the tissue, where they can differentiate into tissue macrophages or dendritic cells.

Cargo Properties

Cargo Type	Checkpoint antibody
Specific Cargo	Anti-CSF-1 antibody
Target Common Name	CSF1
Target Alternative Names	MCSF; CSF-1
Target Full Name	colony stimulating factor 1
Introduction	The protein encoded by this gene is a cytokine that controls the production, differentiation, and function of macrophages. The active form of the protein is found extracellularly as a disulfide-linked homodimer, and is thought to be produced by proteolytic cleavage of membrane-bound precursors. The encoded protein may be involved in

	development of the placenta. Alternate splicing results in multiple transcript variants.
UniprotID	P09603
GeneID	1435
Cargo Delivery System Type	Viral System
Cargo Delivery Approach	Lentivirus

Product Properties

Applications	Enhance the antitumor effects of immunotherapy; Inhibite TAM differentiation into an M2 phenotype
References	Marin-Acevedo, Julian A., ErinMarie O. Kimbrough, and Yanyan Lou. "Next generation of immune checkpoint inhibitors and beyond." *Journal of hematology & oncology* 14 (2021): 1-29. Distributed under Open Access license CC BY 4.0, without modification.
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