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MacroCargo™ Human PBMC-derived Monocytes with Neurturin (Transfection System, Gene PORTER 3000)

Cat. No.: MTS-1222-YF503

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 be cause of their intrinsic characteristics. This product is engineered Human PBMC-der ived Monocytes carried with Neurturin by Transfection System-GenePORTER 3000. MacroCargo™ products aim to improve the macrophage function and delivery of spe cific cargos. We also provide custom macrophage delivery systems based on your s pecific requirements.
Cell Name	PBMC-derived Monocytes
Cell Type	Primary Cell
Cell Species	Human
Cell Background	Monocytes express various receptors, which monitor and sense environmental chan ges. Monocytes are highly plastic and heterogeneous, and change their functional p henotype in response to environmental stimulation. Evidence from murine and huma n studies has suggested that monocytosis can be an indicator of various inflammato ry diseases. Monocytes can differentiate into inflammatory or anti-inflammatory sub sets. Upon tissue damage or infection, monocytes are rapidly recruited to the tissu e, where they can differentiate into tissue macrophages or dendritic cells.

Cargo Properties

Cargo Type	Protein
Specific Cargo	Neurturin
Cargo Common Name	NRTN
Cargo Alternative Names	NTN
Cargo Full Name	Neurturin
Introduction	This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-b eta) superfamily of proteins. The encoded preproprotein is proteolytically processed to generate the mature protein. This protein signals through the RET receptor tyrosi

	ne kinase and a GPI-linked coreceptor, and promotes survival of neuronal populations. A neurturin mutation has been described in a family with Hirschsprung Disease.
UniprotID	Q99748
GeneID	4902
Cargo Delivery System Type	Transfection System
Cargo Delivery Approach	GenePORTER 3000

Product Properties

Applications	Provide significant neuronal protection in Parkinson's disease
References	Zhao, Yuling, et al. "GDNF-transfected macrophages produce potent neuroprotective effects in Parkinson's disease mouse model." *PloS one* 9.9 (2014): e106867. Distributed under Public Domain.
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