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MacroCargo™ Human THP-1 with pDNA encoding IL-13 (Nanoparticle System, Magnetic cationic liposomes)

Cat. No.: MTS-1222-YF408

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 THP-1 carried with pDNA encoding IL-13 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	THP-1
Cell Type	Cell Line
Cell Species	Human
Cell Background	THP-1 is a monocyte isolated from peripheral blood from an acute monocytic leukemia patient. This cell line can be used in immune system disorder research, immunology research, and toxicology research.

Cargo Properties

Cargo Type	Cytokine
Specific Cargo	pDNA encoding IL-13
Cargo Common Name	IL13
Cargo Alternative Names	P600; IL-13
Cargo Full Name	Interleukin 13
Introduction	This gene encodes an immunoregulatory cytokine produced primarily by activated Th2 cells. This cytokine is involved in several stages of B-cell maturation and differentiation. It up-regulates CD23 and MHC class II expression, and promotes IgE isotype switching of B cells. This cytokine down-regulates macrophage activity, thereby inhibits the production of pro-inflammatory cytokines and chemokines. This cytokine is found to be critical to the pathogenesis of allergen-induced asthma but operates through mechanisms independent of IgE and eosinophils. This gene, IL3, IL5, IL4, a

	nd CSF2 form a cytokine gene cluster on chromosome 5q, with this gene particularly close to IL4.
UniprotID	P35225
GeneID	3596
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