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MacroCargo™ Mouse J774 with pDNA encoding IL-5 (Nanoparticle System, Magnetic cationic liposomes)

Cat. No.: MTS-1222-YF361

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 Mouse J774 carried with pDNA encoding IL-5 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	J774
Cell Type	Cell Line
Cell Species	Mouse
Cell Background	Mouse mononuclear macrophages J774A.1 is a cell line isolated in 1968 from the ascites of an adult, female mouse with reticulum cell sarcoma. This cell line can be used in immunology research.

Cargo Properties

Cargo Type	Cytokine
Specific Cargo	pDNA encoding IL-5
Cargo Common Name	IL5
Cargo Alternative Names	EDF; TRF; IL-5
Cargo Full Name	Interleukin 5
Introduction	This gene encodes a cytokine that acts as a growth and differentiation factor for both B cells and eosinophils. The encoded cytokine plays a major role in the regulation of eosinophil formation, maturation, recruitment and survival. The increased production of this cytokine may be related to pathogenesis of eosinophil-dependent inflammatory diseases. This cytokine functions by binding to its receptor, which is a heterodimer, whose beta subunit is shared with the receptors for interleukine 3 (IL3) and colony stimulating factor 2 (CSF2/GM-CSF). This gene is located on chromosome 5 within a cytokine gene cluster which includes interleukin 4 (IL4), interleukin 13 (IL13),

	and CSF2 . This gene, IL4, and IL13 may be regulated coordinately by long-range r egulatory elements spread over 120 kilobases on chromosome 5q31.
UniprotID	P05113
GeneID	3567
Cargo Delivery System Typ e	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 i nflammatory 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 ter m.
Handling Notes	Frozen cells should be thawed immediately upon receipt and grown according to ha ndling 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 immediatel y upon receipt and grown according to handling procedure.
Restriction	Research use only