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

Cat. No.: MTS-1222-YF351

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 IFN- α 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 splenic cells 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 IFN- α
Cargo Common Name	IFNA1
Cargo Alternative Names	IFL; IFN; IFNA@; IFNA13; IeIF D; IFN-ALPHA; IFN-alphaD
Cargo Full Name	Interferon alpha 1

Introduction This gene is a member of the alpha interferon gene cluster on chromosome 9. The encoded cytokine is a member of the type I interferon family that is produced in response to viral infection as a key part of the innate immune response with potent antiviral, antiproliferative and immunomodulatory properties. This cytokine, like other type I interferons, binds a plasma membrane receptor made of IFNAR1 and IFNAR2 that is ubiquitously expressed, and thus is able to act on virtually all body cells. This cytokine is upregulated in preeclamptic placentas and is thought to be a mediator of preeclampsia.

UniprotID	P01562
GeneID	3439,3447
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