SUITE 203, 17 Ramsey Road, Shirley, NY 11967, USA
Tel: 1-631-416-1478 Fax: 1-631-207-8356
info@creative-biolabs.com
macrophage.creative-biolabs.com

MacroCargo™ Mouse RAW264.7 with SIRPα gRNA (Viral System, Lentivirus)

Cat. No.: MTS-1122-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 be cause of their intrinsic characteristics. This product is engineered Mouse RAW264.7 carried with SIRPα gRNA by Viral System-Lentivirus. MacroCargo™ products aim to improve the macrophage function and delivery of specific cargos. We also provide c ustom macrophage delivery systems based on your specific requirements.
Cell Name	RAW264.7
Cell Type	Cell Line
Cell Species	Mouse
Cell Background	RAW 264.7 is a macrophage cell line that was established from a tumor in a male m ouse induced with the Abelson murine leukemia virus.

Cargo Properties

Cargo Type	CRISPR KO
Specific Cargo	SIRPα gRNA
Target Common Name	SIRPA
Target Alternative Names	BIT; MFR; P84; SIRP; MYD-1; SHPS1; CD172A; PTPNS1
Target Full Name	Signal regulatory protein alpha
Introduction	The protein encoded by this gene is a member of the signal-regulatory-protein (SIR P) family, and also belongs to the immunoglobulin superfamily. SIRP family member s are receptor-type transmembrane glycoproteins known to be involved in the negati ve regulation of receptor tyrosine kinase-coupled signaling processes. This protein can be phosphorylated by tyrosine kinases. The phospho-tyrosine residues of this P TP have been shown to recruit SH2 domain containing tyrosine phosphatases (PT P), and serve as substrates of PTPs. This protein was found to participate in signal transduction mediated by various growth factor receptors. CD47 has been demonstr ated to be a ligand for this receptor protein. This gene and its product share very hi gh similarity with several other members of the SIRP family. These related genes ar

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	e located in close proximity to each other on chromosome 20p13. Multiple alternativ ely spliced transcript variants have been determined for this gene.
UniprotID	P78324
GeneID	140885
Cargo Delivery System Typ e	Viral System
Cargo Delivery Approach	Lentivirus

Product Properties

Applications	Prevent cancer cells from evading immune clearance
References	Brom, Victoria C., et al. "The role of immune checkpoint molecules on macrophages in cancer, infection, and autoimmune pathologies." *Frontiers in Immunology* 13 (202 2): 837645. 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 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

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