

ARG22603 anti-CD172a / SIRP alpha antibody [ED9] (PE)

Package: 50 tests
Store at: 4°C

Summary

Product Description	PE-conjugated Mouse Monoclonal antibody [ED9] recognizes CD172a / SIRP alpha. This antibody recognizes rat Tyrosine-protein phosphatase non-receptor type substrate 1, also known as CD172a, Signal-regulatory protein alpha-1, SIRPα, -1, SHP substrate 1, Macrophage membrane protein MFP150 or Macrophage fusion receptor. CD172a is a 509 amino acid ~56 kDa single pass type 1 transmembrane glycoprotein expressed selectively by myeloid cells and by neurons (UniProt: P97710). Mouse anti Rat CD172a antibody, clone ED9 has been reported to bind to an alternative epitope to another anti CD172 antibody, clone OX-41 (Adams et al. 1998) and has been reported to block the interaction of CD172a - CD47 (de Vries et al. 2002).
Tested Reactivity	Rat
Tested Application	FACS
Host	Mouse
Clonality	Monoclonal
Clone	ED9
Isotype	IgG1
Target Name	CD172a / SIRP alpha
Species	Rat
Immunogen	Spleen cell homogenate.
Conjugation	PE
Alternate Names	CD172A; p84; SHPS1; SHPS-1; CD172 antigen-like family member A; Sirp-alpha-3; Sirp-alpha-1; BIT; MYD-1; MFR; Bit; PTPNS1; CD antigen CD172a; Inhibitory receptor SHPS-1; SIRP; MyD-1 antigen; Sirp-alpha-2; Tyrosine-protein phosphatase non-receptor type substrate 1; Signal-regulatory protein alpha-1; Signal-regulatory protein alpha-2; Signal-regulatory protein alpha-3; Macrophage fusion receptor; Brain Ig-like molecule with tyrosine-based activation motifs; P84; SHP substrate 1

Application Instructions

Application table	<table> <tr> <th>Application</th><th>Dilution</th></tr> <tr> <td>FACS</td><td>Neat</td></tr> </table>	Application	Dilution	FACS	Neat
Application	Dilution				
FACS	Neat				
Application Note	<p>FACS: Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.</p> <p>* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.</p>				

Properties

Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS, 0.09% Sodium azide, 1% BSA and 5% Sucrose.
Preservative	0.09% Sodium azide

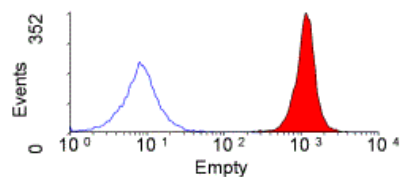
Stabilizer	1% BSA and 5% Sucrose
Storage instruction	Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	Sirpa
Gene Full Name	signal-regulatory protein alpha
Background	<p>The protein encoded by this gene is a member of the signal-regulatory-protein (SIRP) family, and also belongs to the immunoglobulin superfamily. SIRP family members are receptor-type transmembrane glycoproteins known to be involved in the negative regulation of receptor tyrosine kinase-coupled signaling processes. This protein can be phosphorylated by tyrosine kinases. The phospho-tyrosine residues of this PTP have been shown to recruit SH2 domain containing tyrosine phosphatases (PTP), and serve as substrates of PTPs. This protein was found to participate in signal transduction mediated by various growth factor receptors. CD47 has been demonstrated to be a ligand for this receptor protein. This gene and its product share very high similarity with several other members of the SIRP family. These related genes are located in close proximity to each other on chromosome 20p13. Multiple alternatively spliced transcript variants have been determined for this gene. [provided by RefSeq, Jul 2008]</p>
Function	<p>Immunoglobulin-like cell surface receptor for CD47. Acts as docking protein and induces translocation of PTPN6, PTPN11 and other binding partners from the cytosol to the plasma membrane. Supports adhesion of cerebellar neurons, neurite outgrowth and glial cell attachment. May play a key role in intracellular signaling during synaptogenesis and in synaptic function (By similarity). Involved in the negative regulation of receptor tyrosine kinase-coupled cellular responses induced by cell adhesion, growth factors or insulin. Mediates negative regulation of phagocytosis, mast cell activation and dendritic cell activation. CD47 binding prevents maturation of immature dendritic cells and inhibits cytokine production by mature dendritic cells. [UniProt]</p>
Research Area	Cell Biology and Cellular Response antibody; Neuroscience antibody; Cardiomyocyte Cell Surface Marker antibody
Calculated Mw	55 kDa
PTM	<p>N-glycosylated.</p> <p>Phosphorylated on tyrosine residues in response to stimulation with EGF, growth hormone, insulin and PDGF. Dephosphorylated by PTPN11. [UniProt]</p>
Cellular Localization	Membrane; Single-pass type I membrane protein [UniProt]

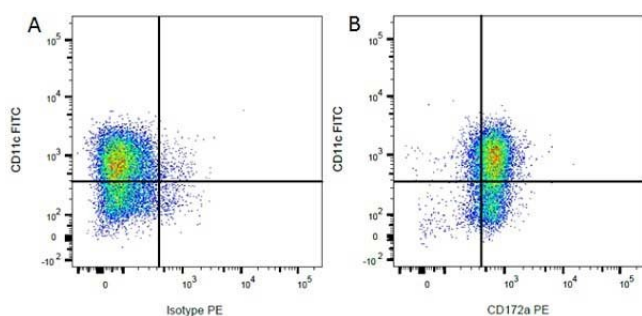
ARG22603 anti-CD172a / SIRP alpha antibody [ED9] (PE) FACS image

Flow Cytometry: Rat peritoneal macrophages stained with ARG22603 anti-CD172a / SIRP alpha antibody [ED9] (PE).



ARG22603 anti-CD172a / SIRP alpha antibody [ED9] (PE) FACS image

Flow Cytometry: Figure A. FITC conjugated Mouse anti Rat CD11c and PE-conjugated Mouse IgG1 isotype control. Figure B. FITC conjugated Mouse anti Rat CD11c and ARG22603 anti-CD172a / SIRP alpha antibody [ED9] (PE). All experiments performed on Rat peritoneal macrophages.



ARG22603 anti-CD172a / SIRP alpha antibody [ED9] (PE) FACS image

Flow Cytometry: Figure A. ARG22603 anti-CD172a / SIRP alpha antibody [ED9] (PE) and FITC conjugated Mouse IgG2a isotype control. Figure B. ARG22603 anti-CD172a / SIRP alpha antibody [ED9] (PE) and FITC conjugated Mouse anti Rat CD11c. All experiments performed on Rat peritoneal macrophages.

