

ARG22750 anti-CD172a / SIRP alpha antibody [BL1H7]

Package: 100 µg
Store at: -20°C

Summary

Product Description	<p>Mouse Monoclonal antibody [BL1H7] recognizes CD172a / SIRP alpha.</p> <p>This antibody recognizes Porcine CD172a, a member of the signal regulatory protein (SIRP) family (Alvarez et al. 2000). Mouse anti Pig CD172a, clone BL1H7 was originally clustered as SWC3 at the Third International Swine Cluster of Differentiation Workshop (Haverson et al. 2001;Thacker et al. 2001). CD172a is expressed on monocyte derived dendritic cells (MoDCs) (Facci et al. 2010) also conventional (cDCs), plasmacytoid (pDCs) DCs and blood DCs.(Facci; Jeong et al. 2010). Mouse anti Pig CD172a, clone BL1H7 immunoprecipitates a single band of ~90-110 kDa from preparations of biotinylated alveolar macrophages, a result confirmed by Western blotting analysis of alveolar macrophage lysates under non reducing conditions (Alvarez et al. 2000). Mouse anti Pig CD172a, clone BL1H7 has proved a useful and reliable tool for immunohistochemical analysis of routinely processed, formalin fixed, paraffin embedded Porcine tissues (Domenech et al. 2003).Aberrant expression of CD172a has been noted on Porcine leukemias (Sipos et al. 2006) with blast cells co-expressing lymphocytic markers CD5 and CD25 whilst expressing the Myeloid marker CD172a in a bi-phenotypic pattern as opposed to the more characteristic single population of CD172+ cells seen in normal blood PBMC (Chamorro et al. 2005).</p>
Tested Reactivity	Pig
Tested Application	FACS, IHC-Fr, IHC-P, IP, WB
Host	Mouse
Clonality	Monoclonal
Clone	BL1H7
Isotype	IgG1
Target Name	CD172a / SIRP alpha
Species	Pig
Immunogen	Porcine alveolar macrophages.
Conjugation	Un-conjugated
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 border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #f2f2f2;"> <th style="text-align: left;">Application</th> <th style="text-align: left;">Dilution</th> </tr> </thead> <tbody> <tr> <td>FACS</td> <td>1:10 - 1:20</td> </tr> <tr> <td>IHC-Fr</td> <td>Assay-dependent</td> </tr> <tr> <td>IHC-P</td> <td>Assay-dependent</td> </tr> <tr> <td>IP</td> <td>Assay-dependent</td> </tr> <tr> <td>WB</td> <td>Assay-dependent (under non-reducing conditions)</td> </tr> </tbody> </table>	Application	Dilution	FACS	1:10 - 1:20	IHC-Fr	Assay-dependent	IHC-P	Assay-dependent	IP	Assay-dependent	WB	Assay-dependent (under non-reducing conditions)
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IHC-Fr	Assay-dependent												
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Application Note FACS: Use 10 µl of the suggested working dilution to 10⁶ cells in 100 µl.

WB: This antibody detects a band of ~ 90-115 kDa in alveolar macrophage lysates. It recognizes porcine CD172a under non-reducing conditions.

IHC-P: Antigen Retrieval: Boil tissue section in Sodium citrate buffer (pH 6.0)

* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS and 0.09% Sodium azide.
Preservative	0.09% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. 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	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]
Function	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]
Research Area	Cell Biology and Cellular Response antibody; Neuroscience antibody; Cardiomyocyte Cell Surface Marker antibody
Calculated Mw	55 kDa
PTM	N-glycosylated. Phosphorylated on tyrosine residues in response to stimulation with EGF, growth hormone, insulin and PDGF. Dephosphorylated by PTPN11. [UniProt]
Cellular Localization	Membrane; Single-pass type I membrane protein [UniProt]