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Monoclonal Antibody to CD172a / SIRPA - FITC

Alternate names: BIT, Brain Ig-like molecule with tyrosine-based activation motifs, CD172 antigen-like family member A, Inhibitory receptor SHPS-1, MFR, MYD1, Macrophage fusion receptor, MyD-1 antigen, PTPNS1, SHP substrate 1, SHPS-1, SHPS1, Signal-regulatory protein alpha-1, Sirp-alpha-2, Sirp-alpha-3, Tyrosine-protein phosphatase non-receptor type substrate 1, p84

Catalog No.: AM05588FC-N

Quantity: 0.1 mg

Concentration: 0.1 mg/ml

Background: CD172a is a receptor-type transmembrane glycoprotein expressed on cells of myeloid origin, including granulocytes, dendritic cells (DCs), macrophages, mast cells and haematopoietic stem cells. CD172a acts as a substrate for several activated tyrosine kinases, including EGFR, PDGFR, src and insulin receptor and is involved in the negative regulation of receptor tyrosine kinase-coupled signaling pathways. Ligand binding of CD172a to integrin-associated protein CD47, results in tyrosine kinase phosphorylation of immunoreceptor tyrosine-based inhibitory motifs (ITIMs) within the cytoplasmic region of CD172a, mediating the recruitment and activation of the tyrosine phosphatases SHP-1 and SHP-2. These then act as regulators of cellular function, through dephosphorylation of specific substrates. Ligation of CD172a with CD47 has been demonstrated in several regulatory processes, including the inhibition of host cell phagocytosis by macrophages and the bi-directional activation of T cells and DCs.

Uniprot ID: P78324

NCBI: NP_001035111.1

GeneID: 140885

Host / Isotype: Mouse / IgG2a

Clone: 15-414

Immunogen: Monocyte-derived dendritic cells.
Remarks: Spleen cells from immunised Balb/c mice were fused with cells of the X63-Ag8.653 myeloma cell line

Format:
State: Liquid purified IgG fraction
Purification: Affinity Chromatography on Protein G
Buffer System: Phosphate buffered saline pH 7.4 containing 0.09% Sodium Azide as preservative and 1% BSA as stabilizer
Label: FITC – Fluorescein Isothiocyanate Isomer 1

Applications: **Flow Cytometry:** Use 10 µl of neat-1/10 diluted antibody to label 1x10e6 cells in 100 µl. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This antibody is specific for CD172a, also known as signal-regulatory protein alpha.
Species: Human.
Other species not tested.

Storage:

Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
This product is photosensitive and should be protected from light.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

1. Fujioka Y, Matozaki T, Noguchi T, Iwamatsu A, Yamao T, Takahashi N, et al. A novel membrane glycoprotein, SHPS-1, that binds the SH2-domain-containing protein tyrosine phosphatase SHP-2 in response to mitogens and cell adhesion. Mol Cell Biol. 1996 Dec;16(12):6887-99. PubMed PMID: 8943344.
2. van Beek, E.M. et al. (2005) Signal regulatory proteins in the immune system. J. Immunol. 175: 7781-7787.