

ARG54283
anti-CD148 / DEP1 antibody [MEM-CD148 / 05] (APC)

Package: 50 tests

Store at: 4°C

Summary

Product Description	APC-conjugated Mouse Monoclonal antibody [MEM-CD148/05] recognizes CD148
Tested Reactivity	Hu
Tested Application	FACS
Specificity	The clone MEM-CD148/05 recognizes CD148, a highly glycosylated up to 250 kDa receptor-like protein tyrosin phosphatase expressed mainly in lymphocytes, myeloid cells and epithelial cells.
Host	Mouse
Clonality	Monoclonal
Clone	MEM-CD148/05
Isotype	IgG2b
Target Name	CD148 / DEP1
Species	Human
Immunogen	Human recombinant CD148 (amino acids 1-444)
Conjugation	APC
Alternate Names	R-PTP-J; Density-enhanced phosphatase 1; R-PTP-ETA; DEP-1; SCC1; DEP1; CD antigen CD148; Receptor-type tyrosine-protein phosphatase eta; Protein-tyrosine phosphatase eta; Protein-tyrosine phosphatase receptor type J; EC 3.1.3.48; HPTPeta; HPTP eta; R-PTP-eta; CD148

Application Instructions

Application table	Application	Dilution
	FACS	10 µl / 10 ⁶ cells

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

Properties

Form	Liquid
Purification Note	The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Buffer	PBS, 15 mM Sodium azide and 0.2% (w/v) high-grade protease free BSA
Preservative	15 mM Sodium azide
Stabilizer	0.2% (w/v) high-grade protease free BSA
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

Database links

[GeneID: 5795 Human](#)

[Swiss-port # Q12913 Human](#)

Gene Symbol

PTPRJ

Gene Full Name

protein tyrosine phosphatase, receptor type, J

Background

CD148 (also known as HPTP-eta or DEP-1) is a transmembrane protein tyrosin phosphatase containing eight fibronectin type III extracellular domains. This protein is known to inhibit transduction of mitogenic signals in non-hematopoietic cells (fibroblasts, epithelial cells), and signal transduction downstream of T cell receptor, however, it also augments immunoreceptor signaling in B cells and macrophages via dephosphorylating C-terminal tyrosine of Src-family tyrosine kinases. CD148 expression increases after in vitro activation of peripheral blood leucocytes. It can be also used as marker of the most mature human thymocytes, and leukemic cells corresponding to this stadium of thymocyte differentiation. In contrast, in mice the CD148 expression sharply drops through the double positive stage to the single positive thymocytes.

Function

Tyrosine phosphatase which dephosphorylates or contributes to the dephosphorylation of CTNND1, FLT3, PDGFRB, MET, RET (variant MEN2A), KDR, LYN, SRC, MAPK1, MAPK3, EGFR, TJP1, OCLN, PIK3R1 and PIK3R2. Plays a role in cell adhesion, migration, proliferation and differentiation. Involved in vascular development. Regulator of macrophage adhesion and spreading. Positively affects cell-matrix adhesion. Positive regulator of platelet activation and thrombosis. Negative regulator of cell proliferation. Negative regulator of PDGF-stimulated cell migration; through dephosphorylation of PDGFR. Positive regulator of endothelial cell survival, as well as of VEGF-induced SRC and AKT activation; through KDR dephosphorylation. Negative regulator of EGFR signaling pathway; through EGFR dephosphorylation. Enhances the barrier function of epithelial junctions during reassembly. Negatively regulates T-cell receptor (TCR) signaling. Upon T-cell TCR activation, it is up-regulated and excluded from the immunological synapses, while upon T-cell-antigen presenting cells (APC) disengagement, it is no longer excluded and can dephosphorylate PLCG1 and LAT to down-regulate prolongation of signaling. [UniProt]

Research Area

Signaling Transduction antibody

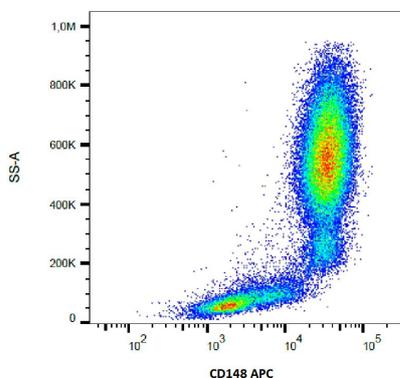
Calculated Mw

146 kDa

PTM

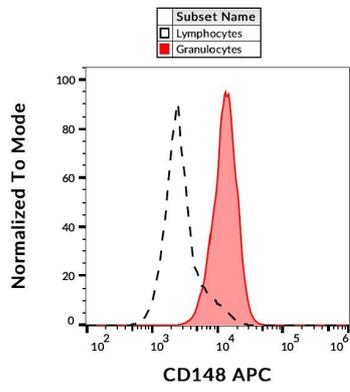
N- and O-glycosylated.

Images



ARG54283 anti-CD148 / DEP1 antibody [MEM-CD148 / 05] (APC)
FACS image

Flow Cytometry: Human peripheral blood stained with ARG54283 anti-CD148 / DEP1 antibody [MEM-CD148 / 05] (APC).



ARG54283 anti-CD148 / DEP1 antibody [MEM-CD148 / 05] (APC)
FACS image

Flow Cytometry: Separation of Human CD148 positive Granulocytes (red) from Human CD148 negative Lymphocytes (black-dashed). Human peripheral blood stained with ARG54283 anti-CD148 / DEP1 antibody [MEM-CD148 / 05] (APC).