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CD45 Monoclonal Antibody (MRC OX-1), PE

Catalog Number MA1-90812

Product data sheet

Details

Size	50 µg
Host/Isotope	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	MRC OX-1
Immunogen	Partially purified rat thymocyte membrane glycoproteins
Conjugate	PE
Form	Liquid
Concentration	0.1 mg/mL
Purification	Protein G
Storage buffer	PBS with 0.5% BSA
Contains	0.02% sodium azide
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles. Store in the dark.

Species Reactivity

Species reactivity	Rat

Tested Applications	Dilution *
Flow Cytometry (Flow)	Assay-dependent
Immunohistochemistry (Frozen) (IHC (F))	Assay-dependent

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Product specific information

Store product as a concentrated solution. Centrifuge briefly prior to opening the vial.

Background/Target Information

CD45 (LCA, leukocyte common antigen) is a receptor-type protein tyrosine phosphatase (PTP) ubiquitously expressed in all nucleated hematopoietic cells, comprising approximately 10% of all surface proteins in lymphocytes. CD45 is absent on non-hematopoietic cell lines, normal and malignant, non-hematopoietic tissues. CD45 glycoprotein is crucial in lymphocyte development and antigen signaling, serving as an important regulator of Src-family kinases. CD45 protein exists as multiple isoforms as a result of alternative splicing, differ in their extracellular domains but share identical transmembrane and cytoplasmic domains. CD45RA is an isoform of the CD45 complex and has restricted expression between different subtypes of lymphoid cells. CD45 isoforms differ in their ability to translocate into the glycosphingolipid-enriched membrane domains and their expression depends on cell type and physiological state of the cell. CD45 has been shown to be an essential regulator of T- and B-cell antigen receptor signaling and suppresses JAK kinases to regulate cytokine receptor signaling. CD45 is also important in promoting cell survival by modulating integrin-mediated signal transduction pathway, DNA fragmentation during apoptosis and inhibition or upregulation of various immunological functions.

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