CD45RO Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	CD45RO, Monoclonal Antibody
Full Product Name	Anti-Human CD45RO Monoclonal Antibody (Alexa Fluor 647 Conjugated)
Product Gene Name	anti-CD45RO antibody
Clonality	Monoclonal
Isotype	IgG2a, kappa
Clone Number	UCHL1
Host	Mouse
Species Reactivity	Human
Form/Format	PBS with 0.05% Proclin300, 1% BSA
Preparation and Storage	Store at 2-8 degree C and protect from prolonged exposure to light. Do not freeze.
Matching Pairs	Antibody: CD45RO (MBS2559025) Isotype Control: IgG2a Clone #C1.18.4 (MBS2557768)
OMIM	126200
3D Structure	ModBase 3D Structure for P08575
Conjugation	Alexa Fluor 647
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-CD45RO antibody	Flow Cytometry (FC/FACS)
Related Product Information for anti-CD45RO antibody	CD45RO is a 180 kD single chain membrane glycoprotein. It is a splice variant of tyrosine phosphatase CD45, lacking the A, B, and C determinants. The CD45RO isoform is expressed on activated and memory T cells, some B cell subsets, activated monocytes/macrophages, and granulocytes. CD45RO enhances both T cell receptor and B cell receptor signaling mediated activation. CD45 and its isoforms non-covalently associate with lymphocyte phosphatase-associated phosphoprotein (LPAP) on T and B lymphocytes. CD45 has been reported to be associated with several other cell surface antigens including CD1, CD2, CD3, and CD4. CD45 has also been reported to bind galectin-1 and CD22. CD45 isoform expression can change in response to cytokines.
Other Notes	Small volumes of anti-CD45RO antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CD45RO purchase	MBS2559025 is an antibody targeting CD45RO. Also known as Anti-Human CD45RO Monoclonal Antibody (Alexa Fluor 647 Conjugated). Reactive in Human. Host: Mouse.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD45RO. It may not necessarily be applicable to this product.

NCBI GI #	392307007
NCBI GeneID	5788
NCBI Accession #	NP_002829.3
UniProt Primary Accession #	P08575

UniProt Related Accession #	P08575
GenBank Nucleotide #	NP_002829.3
NCBI Official Full Name	receptor-type tyrosine-protein phosphatase C isoform 1
NCBI Official Synonym Full Names	protein tyrosine phosphatase receptor type C
NCBI Official Symbol	PTPRC
NCBI Official Synonym Symbols	LCA; LY5; B220; CD45; L-CA; T200; CD45R; GP180
UniProt Protein Name	Receptor-type tyrosine-protein phosphatase C
UniProt Synonym Protein Names	Leukocyte common antigen; L-CA; T200
UniProt Gene Name	PTPRC
UniProt Synonym Gene Names	CD45; L-CA
UniProt Entry Name	PTPRC_HUMAN
NCBI Protein Information	receptor-type tyrosine-protein phosphatase C
NCBI Summary for CD45RO	The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitosis, and oncogenic transformation. This PTP contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains, and thus is classified as a receptor type PTP. This PTP has been shown to be an essential regulator of T- and B-cell antigen receptor signaling. It functions through either direct interaction with components of the antigen receptor complexes, or by activating various Src family kinases required for the antigen receptor signaling. This PTP also suppresses JAK kinases, and thus functions as a regulator of cytokine receptor signaling. Alternatively spliced transcripts variants of this gene, which encode distinct isoforms, have been reported. [provided by RefSeq, Jun 2012]
UniProt Comments for CD45RO	CD45: a receptor type protein tyrosine phosphatase protein. Contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains. The first PTPAse domain has enzymatic activity, while the second one seems to affect the substrate specificity of the first one. Specifically expressed in hematopoietic cells. An essential regulator of T- and B-cell antigen receptor signaling. Functions through either direct interaction with components of the antigen receptor complexes, or by activating various Src family kinases required for the antigen receptor signaling. Suppresses JAK kinases, and thus functions as a regulator of cytokine receptor signaling. Four alternatively spliced isoforms have been described. Protein type: Membrane protein, integral; Motility/polarity/chemotaxis; Receptor protein phosphatase, tyrosine; EC 3.1.3.48 Chromosomal Location of Human Ortholog: 1q31-q32 Cellular Component: focal adhesion; membrane; integral to plasma membrane; plasma membrane; lipid raft; external side of plasma membrane Molecular Function: protein binding; transmembrane receptor protein tyrosine phosphatase activity; protein tyrosine phosphatase activity; protein kinase binding Biological Process: B cell proliferation; axon guidance; substrate-bound cell migration, cell release from substrate; regulation of cell cycle; protein amino acid dephosphorylation; positive regulation of antigen receptor-mediated signaling pathway; T cell receptor signaling pathway; bone marrow development; B cell receptor signaling pathway; stem cell development; cell surface receptor linked signal transduction; dephosphorylation; release of sequestered calcium ion into cytosol; positive regulation of protein kinase activity; negative regulation of T cell mediated cytotoxicity; positive regulation of B cell proliferation; negative regulation of protein kinase activity; positive regulation of T cell proliferation; hemopoietic progenitor cell differentiation; negative regulation of cytokine and chemokine mediated signaling pathway; immunoglobulin biosynthetic process; defense response to virus; T cell differentiation Disease: Hepatitis C Virus, Susceptibility To; Severe Combined Immunodeficiency, Autosomal Recessive, T Cell-negative, B Cell-positive, Nk Cell-positive

Research Articles on CD45RO	**1.** Data identifies CD45 as a receptor for LukF-PV. The human-specific interaction between LukF-PV and CD45 provides a molecular explanation for resistance of hC5aR1KI mouse neutrophils to PVL and probably contributes to the lack of a PVL-mediated phenotype during infection in these mice.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/monoclonal-human-antibody/cd45ro/2559025