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CD45 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP1620a

Specification

CD45 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession P08575

CD45 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 5788

Other Names
Receptor-type tyrosine-protein phosphatase C, Leukocyte common antigen, L-CA, T200, CD45, PTPRC, CD45

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1620a was selected from the C-term region of human CD45 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CD45 Antibody (C-term) Blocking Peptide - Protein Information

Name PTPRC (HGNC:9666)

Synonyms CD45

Function
Protein tyrosine-protein phosphatase required for T-cell activation through the antigen receptor. Acts as a positive regulator of T-cell coactivation upon binding to DPP4. The first PTPase domain has enzymatic activity, while the second one seems to affect the substrate specificity of the first one. Upon T-cell activation, recruits and dephosphorylates SKAP1 and FYN. Dephosphorylates LYN, and thereby modulates LYN activity (By similarity).

Cellular Location
Cell membrane; Single-pass type I membrane protein. Membrane raft Note=Colocalized with DPP4 in membrane rafts

Tissue Location
Isoform 1: Detected in thymocytes. Isoform 2: Detected in thymocytes. Isoform 3: Detected in thymocytes. Isoform 4: Not detected in thymocytes. Isoform 5: Detected in thymocytes. Isoform 6: Not detected in thymocytes. Isoform 7: Detected in thymocytes Isoform 8: Not detected in thymocytes.

CD45 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

CD45 Antibody (C-term) Blocking Peptide - Images

CD45 Antibody (C-term) Blocking Peptide - Background

CD45 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, mitotic cycle, and oncogenic transformation. This PTP contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains, and thus belongs to receptor type PTP. The CD45 gene is specifically expressed in hematopoietic cells. 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.

CD45 Antibody (C-term) Blocking Peptide - References

Stanton, T., et al., Proc. Natl. Acad. Sci. U.S.A. 100(10):5997-6002 (2003).Vogel, A., et al., Genes Immun. 4(1):79-81 (2003).Rachmilewitz, J., et al., J. Biol. Chem. 278(16):14059-14065 (2003).McCann, F.E., et al., J. Immunol. 170(6):2862-2870 (2003).Fernandis, A.Z., et al., J. Biol. Chem. 278(11):9536-9543 (2003).