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CD45 Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1620a

Specification

CD45 Antibody (C-term) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	P08575
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**1245-1275**

CD45 Antibody (C-term) - Additional Information

Gene ID 5788

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

Target/Specificity
This CD45 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1245-1275 amino acids from the C-terminal region of human CD45.

Dilution
WB~~1:1000
IHC-P~~1:10~50
FC~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CD45 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CD45 Antibody (C-term) - 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

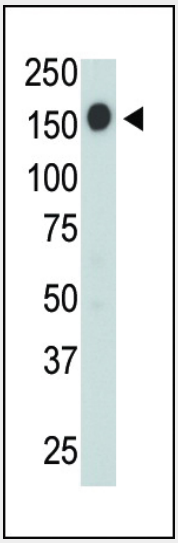
Tissue Location
Isoform 1: Detected in thymocytes. Isoform 2: Detected in thymocytes. Isoform 3: Detected in thymocytes. Isoform 4: Not detected in thymocytes. Isoform 5: Detected in thymocytes. Isoform 6: Not detected in thymocytes. Isoform 7: Detected in thymocytes Isoform 8: Not detected in thymocytes.

CD45 Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CD45 Antibody (C-term) - Images



The anti-CD45 (C-term) Pab (Cat. #AP1620a) is used in Western blot to detect CD45 in jurkat cell lysate.

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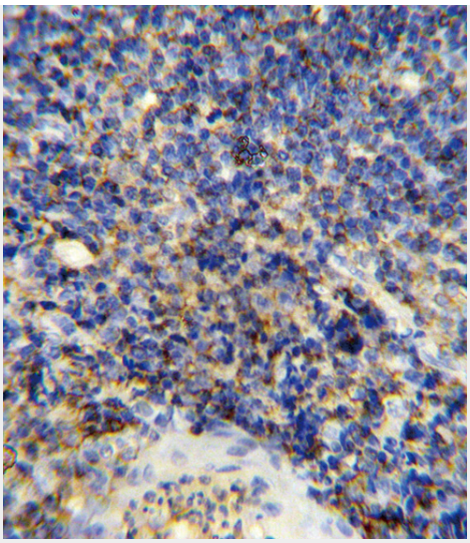
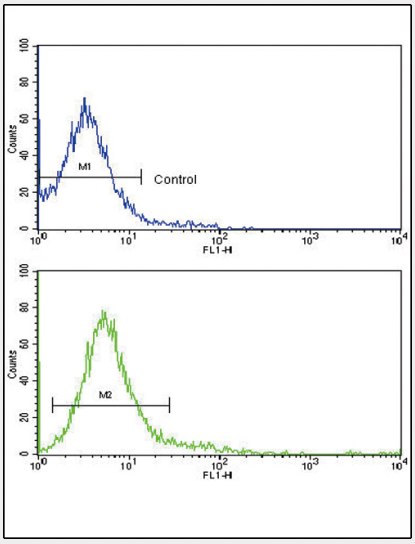


Formalin-fixed and paraffin-embedded human tonsil reacted with CD45 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow cytometric analysis of jurkat cells using CD45 Antibody (C-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

CD45 Antibody (C-term) - 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) - 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).