

Product datasheet for **TA327279**

CD45 (PTPRC) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, WB
Recommended Dilution:	WB 1:500 - 1:2000
Reactivity:	Mouse, Human, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	A synthetic peptide of human PTPRC
Formulation:	Store at -20C or -80C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	147 kDa
Gene Name:	protein tyrosine phosphatase, receptor type C
Database Link:	NP_002829 Entrez Gene 19264 Mouse Entrez Gene 24699 Rat Entrez Gene 5788 Human P08575



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Background:

The protein phosphatase (PTP) receptor CD45 is a type I transmembrane protein comprised of a pair of intracellular tyrosine phosphatase domains and a variable extracellular domain generated by alternative splicing. The catalytic activity of CD45 is a function of the first phosphatase domain (D1) while the second phosphatase domain (D2) may interact with and stabilize the first domain, or recruit/bind substrates. CD45 interacts directly with antigen receptor complex proteins or activates Src family kinases involved in the regulation of T- and B-cell antigen receptor signaling. Specifically, CD45 dephosphorylates Src-family kinases Lck and Fyn at their conserved negative regulatory carboxy-terminal tyrosine residues and upregulates kinase activity. Conversely, studies indicate that CD45 can also inhibit Lck and Fyn by dephosphorylating their positive regulatory autophosphorylation site. CD45 appears to be both a positive and a negative regulator that conducts signals depending on specific stimuli and cell type. Human leukocytes including lymphocytes, eosinophils, monocytes, basophils and neutrophils express CD45, while erythrocytes and platelets are negative for CD45 expression.

Synonyms:

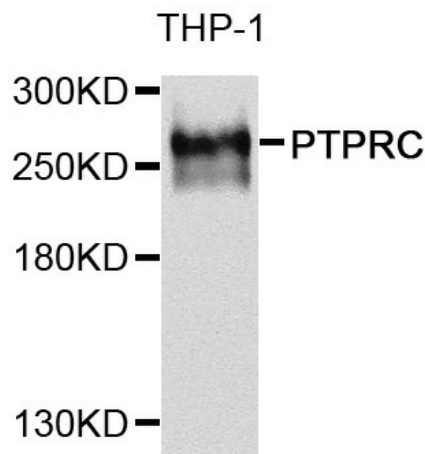
B220; CD45; CD45R; GP180; L-CA; LCA; LY5; T200

Protein Families:

Druggable Genome, ES Cell Differentiation/IPS, Phosphatase, Transmembrane

Protein Pathways:

Cell adhesion molecules (CAMs), Fc gamma R-mediated phagocytosis, Primary immunodeficiency, T cell receptor signaling pathway

Product images:

Western blot analysis of extracts of THP-1 cells, using PTPRC antibody.