

Active Recombinant Human PTPRC, His-tagged

Cat. No. PTPRC-671H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Protein tyrosine phosphatase, Catalytic domain (584-1256) with N-terminal His tag, was expressed in a <i>Baculovirus Sf9</i> expression system. MW=75 kDa,
Species	Human
Source	Sf9 Cells
ProteinLength	584-1256 a.a.
Description	PTPRC (CD45) contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains, and thus belongs to receptor type PTP. This gene is specifically expressed in hematopoietic cells. PTPRC 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.
Formulation	Recombinant proteins were eluted in 25 mM Tris-HCL, 75 mM NaCl, pH 8.0, 0.05% Tween, 5 mM DTT and 50% glycerol. Liquid at -20°C.
Purity	> 90% by SDS-PAGE.
Specific Activity	26 U/ug. One unit will hydrolyze 1 nmol p-nitrophenyl phosphate per minute at pH 7.4 and 30°C. Assay buffer: 50 mM HEPES, pH 7.4, 2 mM EDTA, 3 mM DTT, 100 mM

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NaCl, 50 mM pNPP. The specific activity of CD45 was determined using pNPP.
Enzyme reaction condition: 20 mM pNPP, 2 min incubation at 30°C, 2ug/ml enzyme.

Application

Useful for the study of enzyme kinetics, regulation, and to dephosphorylate target substrates.

Stability

>12 months at -80°C.

Pathways

Cell adhesion molecules (CAMs); Fc gamma R-mediated phagocytosis; Primary immunodeficiency; T cell receptor signaling pathway; Axon guidance; :Signaling in Immune system

GENE INFORMATION

Gene Name

[PTPRC protein tyrosine phosphatase, receptor type, C \[Homo sapiens \]](#)

Synonyms

PTPRC; protein tyrosine phosphatase, receptor type, C; LCA; LY5; B220; CD45; T200; CD45R; GP180; CD45 antigen; glycoprotein; T200 glycoprotein; leukocyte-common antigen; T200 leukocyte common antigen; protein tyrosine phosphatase, receptor type, c polypeptide; Leukocyte common antigen; L-CA; EC 3.1.3.48; protein tyrosine phosphatase, receptor type, c polypeptide

Gene ID

[5788](#)

mRNA Refseq

[NM_002838](#)

Protein Refseq

[NP_002829](#)

MIM

[151460](#)

UniProt ID

[P08575](#)

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Chromosome Location	1q31-q32
Function	heparan sulfate proteoglycan binding; heparin binding; hydrolase activit; protein binding; protein kinase binding; transmembrane receptor protein tyrosine phosphatase activity
PDB rendering based on 1ygr.	

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