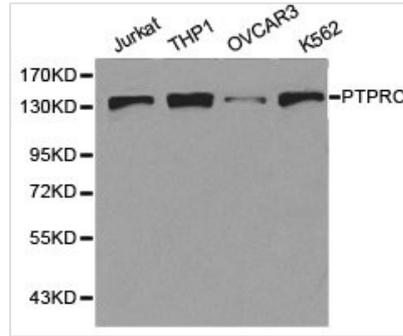




# PTPRC Antibody

<b>Product Code</b>	CSB-PA019049KA01HU
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	P08575
<b>Immunogen</b>	A synthetic peptide of Human PTPRC
<b>Raised In</b>	Rabbit
<b>Species Reactivity</b>	Human, Mouse, Rat
<b>Tested Applications</b>	ELISA, WB, IHC; WB: 1:500-1:2000, IHC: 1:50-1:200
<b>Relevance</b>	<p>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.</p>
<b>Storage Buffer</b>	Store at -20°C or -80°C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
<b>Purification Method</b>	Affinity purification
<b>Isotype</b>	IgG
<b>Alias</b>	PTPRC; B220; CD45; CD45R; GP180; LCA; LY5; T200
<b>Product Type</b>	Rabbit Anti Human PolyClonal Antibody
<b>Species</b>	Homo sapiens (Human)
<b>Intended Use</b>	For research use only. Not for human, diagnostic or therapeutic use.
<b>Target Names</b>	PTPRC
<b>Image</b>	



Western blot analysis of extracts of various cell lines, using PTPRC antibody.

## Target Details

This protein 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. This 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. Four alternatively spliced transcripts variants of this gene, which encode distinct isoforms, have been reported.