

## PTPRC/CD45R0 Protein, Human (HEK293, Fc)

<b>Cat. No.:</b>	HY-P72913
<b>Synonyms:</b>	Receptor-type tyrosine-protein phosphatase C; L-CA; T200; PTPRC; CD45
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	P08575-4 (M1-K416)
<b>Gene ID:</b>	5788
<b>Molecular Weight:</b>	Approximately 122 kDa

### PROPERTIES

#### AA Sequence

MTMYLWLKLL	AFGF AFLDTE	VFVTGQSPTP	SPTDAYLNAS
ETTTLSPSGS	AviSTTTIAT	TPSKPTCDEK	YANITVDYLY
NKETKLF TAK	LNVNENVECG	NNTCTNNEVH	NLTECKNASV
SISHNSCTAP	DKTLILDVPP	GVEKFQLHDC	TQVEKADTTI
CLKWKNIETF	TCDTQNI TYR	FQCGNMI FDN	KEIKLENLEP
EHEYKCDSEI	LYNNHKFTNA	SKIIKTDFGS	PGEPQIIFCR
SEAAHQGVIT	WNPPQRSFHN	FTLCYIKETE	KDCLNLDKNL
IKYDLQNLKP	YTKYVLSLHA	YIIAKVQRNG	SAAMCHFTTK
SAPPSQVWNM	TVSMTSDNSM	HVKCRPPRDR	NGPHERYHLE
VEAGNTLVRN	ESHKNCDFRV	KDLQYSTDYT	FKAYFHNGDY
PGEPFILHHS	TSYNSK		

**Appearance** Lyophilized powder.

**Formulation** Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.

**Endotoxin Level** <1 EU/µg, determined by LAL method.

**Reconstitution** It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH<sub>2</sub>O.

**Storage & Stability** Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

**Shipping** Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

**Background** Receptor-type tyrosine-protein phosphatase C (PTPRC) is a member of the protein tyrosine phosphatase (PTP) family, also

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known as CD45, is a transmembrane glycoprotein. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitosis, and oncogenic transformation. PTPRC contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains, and thus is classified as a receptor type PTP. PTPRC has been shown to be an essential regulator of T- and B-cell antigen receptor signaling as PTPRC positive regulate T-cell coactivation upon binding to DPP4, recruiting and dephosphorylating SKAP1 and FYN. PTPRC also dephosphorylates LYN, and thereby modulates LYN activity. PTPRC 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. PTPRC also suppresses JAK kinases, and thus functions as a regulator of cytokine receptor signaling. PTPRC gene has many alternatively spliced transcripts variants, which encode distinct isoforms<sup>[1][2][3]</sup>.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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