

## PTPRC/CD45RAB Protein, Human (529a.a, HEK293, His)

Cat. No.:	HY-P74290
Synonyms:	Receptor-type tyrosine-protein phosphatase C; L-CA; T200; PTPRC; CD45
Species:	Human
Source:	HEK293
Accession:	P08575-5 (M1-K529)
Gene ID:	5788
Molecular Weight:	Approximately 57.4 kDa

### PROPERTIES

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	<p>Receptor-type tyrosine-protein phosphatase C (PTPRC) is a member of the protein tyrosine phosphatase (PTP) family, also 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.</p> <p>PTPRC contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains, and thus is classified as a receptor type PTP.</p> <p>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.</p> <p>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.</p> <p>PTPRC gene has many alternatively spliced transcripts variants, which encode distinct isoforms<sup>[1][2][3]</sup>.</p>
------------	--

---

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA