

Recombinant Human PTPRC Protein (Met1-Lys529), His-tagged

Cat. No. PTPRC-655H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human PTPRC Protein (XP_006711535.1) (Met1-Lys529) was produced by HEK293 Cells expression system. This protein was expressed with a polyhistidine tag at the C-terminus.
Species	Human
Source	HEK293
ProteinLength	Met1-Lys529
Description	The cluster of differentiation (CD) system is commonly used as cell markers in immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules which associating with the immune function of the cell. There are more than 32 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion. Protein tyrosine phosphatase, receptor type C (CD45), also known as PTPRC is a member of the protein tyrosine phosphatase (PTP) family which is known for its function to serve as signaling molecules and to regulate a variety of cellular processes such as cell proliferation, differentiation, mitotic cycle and oncogenic transformation. CD45 is found expression specifically in hemotopietic cells. CD45 consists of an extracellular domain, a single transmembrane segment and two

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tandem intracytoplasmic catalytic domains. It serves as an essential regulator of T-cell and B-cell antigen receptor signaling through either direct interaction with components of the antigen receptor complexes or by activating various Src family kinases required for the antigen receptor signaling and it also can suppress JAK kinases.

Predicted N Terminal	Gln 26
Form	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant human PTPRC consists of 515 amino acids and predicts a molecular mass of 57.4 kDa.
Endotoxin	< 1.0 EU per µg protein as determined by the LAL method.
Purity	> 95 % as determined by SDS-PAGE.
Stability	Samples are stable for up to twelve months from date of receipt at -70 centigrade.
Storage	Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are

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shipped out with blue ice unless customers require otherwise.

GENE INFORMATION

Gene Name	PTPRC protein tyrosine phosphatase, receptor type, C [Homo sapiens]
Official Symbol	PTPRC
Synonyms	PTPRC; CD45; GP180; LCA; T200; CD45 antigen; T200 glycoprotein; LY5; B220; L-CA; CD45R;
Gene ID	5788
mRNA Refseq	NM_002838
Protein Refseq	NP_002829
MIM	151460
UniProt ID	P08575

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