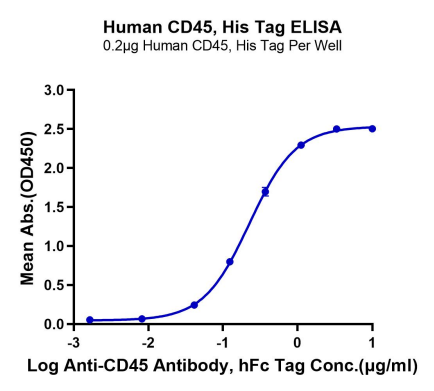
Bioactive CellTx™ HuPro®

PTPRC (Human) Recombinant Protein

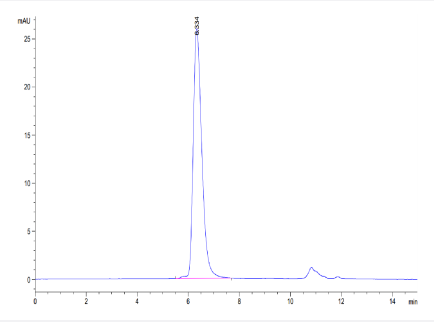
Catalog # P9940 Size 100 ug

Applications



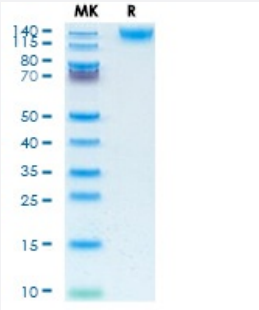
Enzyme-linked Immunoabsorbent Assay

Immobilized Human CD45, His Tag at 2 ug/mL (100 uL/well) on the plate. Dose response curve for Anti-CD45 Antibody, hFc Tag with the EC50 of 0.23 ug/mL determined by ELISA.



SEC-HPLC

The purity of Human CD45 is greater than 95% as determined by SEC-HPLC.



Tris-Bis PAGE

Human CD45 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

Specification

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Product Description	Human PTPRC (P08575-3, Gln26-Lys577) partial recombinant protein with His tag at C-Terminus ex pressed in HEK293 cells.
Sequence	Gln26-Lys577
Host	Human
Theoretical MW (kDa)	61.9
Form	Lyophilized
Preparation Method	Mammalian cell (HEK293) expression system
Purity	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin Level	< 1 EU per 1 ug of protein (determined by LAL method)
Activity	The EC_{50} was 0.23 ug/mL, messured by ELISA at 2 ug/mL.
Quality Control Testing	SEC-HPLC and Tris-Bis PAGE SEC-HPLC The purity of Human CD45 is greater than 95% as determined by SEC-HPLC. Tris-Bis PAGE Human CD45 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.
Recommend Usage	Biological Activity ELISA SDS-PAGE The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from sterile distilled Water is > 100 ug/mL
Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Result of bioactivity analysis

Applications

- Functional Study
- Enzyme-linked Immunoabsorbent Assay

  Immobilized Human CD45, His Tag at 2 ug/mL (100 uL/well) on the plate. Dose response curve for Anti-CD45 Antibody, hFc Tag with the EC50 of 0.23 ug/mL determined by ELISA.
- SDS-PAGE

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Gene Info — PTPRC

Entrez GeneID	5788
Protein Accession#	P08575-3
Gene Name	PTPRC
Gene Alias	B220, CD45, CD45R, GP180, LCA, LY5, T200
Gene Description	protein tyrosine phosphatase, receptor type, C
Omim ID	126200 151460 609532
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene 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 c ell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP contains an extra cellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic dom ains, 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 sign aling. It functions through either direct interaction with components of the antigen receptor comple xes, or by activating various Src family kinases required for the antigen receptor signaling. This P TP 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 b een reported. [provided by RefSeq
Other Designations	CD45 antigen|T200 glycoprotein|T200 leukocyte common antigen|glycoprotein|leukocyte-commo n antigen|protein tyrosine phosphatase, receptor type, c polypeptide

Pathway

- Cell adhesion molecules (CAMs)
- Fc gamma R-mediated phagocytosis
- Primary immunodeficiency
- T cell receptor signaling pathway

Disease

- Arthritis
- Ascariasis

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- Autoimmune Diseases
- Cardiomyopathy
- Diabetes Mellitus
- Genetic Predisposition to Disease
- Graves Disease
- Hashimoto Disease
- Hepatitis
- Hepatitis B
- Hepatitis C
- HIV Infections
- Inflammatory Bowel Diseases
- Lupus Erythematosus
- Lymphopenia
- Multiple Sclerosis
- Paraparesis
- Scleroderma
- Severe combined immunodeficiency
- Thyroiditis

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