

## CD45 Protein, Mouse (HEK293, Fc)

Cat. No.:	HY-P72916
Synonyms:	Receptor-type tyrosine-protein phosphatase C; L-CA; T200; PTPRC; CD45
Species:	Mouse
Source:	HEK293
Accession:	NP_035340.3 (Q26-N425)
Gene ID:	19264
Molecular Weight:	Approximately 130 kDa

### PROPERTIES

AA Sequence	<p>Q T P T P S D G A S    L T T L T P S T L G    L A S T D P P S T T    I A T T T K Q T C A</p> <p>A M F G N I T V N Y    T Y E S S N Q T F K    A D L K D V Q N A K    C G N E D C E N V L</p> <p>N N L E E C S Q I K    N I S V S N D S C A    P A T T I D L Y V P    P G T D K F S L H D</p> <p>C T P K E K A N T S    I C L E W K T K N L    D F R K C N S D N I    S Y V L H C E P E N</p> <p>N T K C I R R N T F    I P E R C Q L D N L    R A Q T N Y T C V A    E I L Y R G V K L V</p> <p>K N V I N V Q T D L    G I P E T P K P S C    G D P A A R K T L V    S W P E P V S K P E</p> <p>S A S K P H G Y V L    C Y K N N S E K C K    S L P N N V T S F E    V E S L K P Y K Y Y</p> <p>E V S L L A Y V N G    K I Q R N G T A E K    C N F H T K A D R P    D K V N G M K T S R</p> <p>P T D N S I N V T C    G P P Y E T N G P K    T F Y I L V V R S G    G S F V T K Y N K T</p> <p>N C Q F Y V D N L Y    Y S T D Y E F L V S    F H N G V Y E G D S    V I R N E S T N F N</p>
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
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 PBS, pH 7.4. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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	CD45 protein, a member of the protein tyrosine phosphatase family, exhibits versatile functions, including heparan sulfate proteoglycan binding activity, heparin binding activity, and protein tyrosine phosphatase activity. It is intricately involved in
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key processes such as lymphocyte differentiation, positive regulation of macromolecule metabolic processes, and regulation of signal transduction. CD45 acts upstream in lymphocyte-related pathways, including differentiation and activation, while being prominently located in the external side of the plasma membrane, focal adhesion, and membrane raft. Widely expressed in various structures such as the 3rd branchial arch, alimentary system, cardiovascular system, hemolymphoid system, and placenta, CD45's significance is underscored by its association with conditions like systemic lupus erythematosus. The human ortholog of this gene, PTPRC (protein tyrosine phosphatase receptor type C), is implicated in hepatitis C, multiple sclerosis, and severe combined immunodeficiency, highlighting its pivotal role in immune-related disorders.

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**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