

## CD8 alpha Protein, Mouse (HEK293, His)

<b>Cat. No.:</b>	HY-P74268
<b>Synonyms:</b>	T-cell surface glycoprotein CD8 alpha chain; CD8a; CD8A; MAL
<b>Species:</b>	Mouse
<b>Source:</b>	HEK293
<b>Accession:</b>	P01731/NP_001074579.1 (K28-Y196)
<b>Gene ID:</b>	12525
<b>Molecular Weight:</b>	The protein migrates as 27-35 kDa under reducing SDS-PAGE due to glycosylation.

### PROPERTIES

<b>AA Sequence</b>	<p>K P Q A P E L R I F      P K K M D A E L G Q      K V D L V C E V L G      S V S Q G C S W L F</p> <p>Q N S S S K L P Q P      T F V V Y M A S S H      N K I T W D E K L N      S S K L F S A M R D</p> <p>T N N K Y V L T L N      K F S K E N E G Y Y      F C S V I S N S V M      Y F S S V V P V L Q</p> <p>K V N S T T T K P V      L R T P S P V H P T      G T S Q P Q R P E D      C R P R G S V K G T</p> <p>G L D F A C D I Y</p>
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years from date of receipt. 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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>The CD8A, an integral membrane glycoprotein, plays a critical role in the immune response, fulfilling multiple functions in responses against both external and internal threats. In T-cells, it primarily functions as a coreceptor for the MHC class I molecule:peptide complex, interacting simultaneously with the T-cell receptor (TCR) and the MHC class I proteins presented by antigen-presenting cells (APCs). This interaction leads to the recruitment of the Src kinase LCK to the vicinity of the TCR-CD3 complex. LCK, in turn, initiates diverse intracellular signaling pathways, phosphorylating various substrates and ultimately promoting lymphokine production, motility, adhesion, and activation of cytotoxic T-lymphocytes (CTLs). This mechanism enables CTLs to recognize and eliminate infected cells and tumor cells. In NK-cells, the presence of CD8A</p>
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homodimers at the cell surface provides a survival mechanism allowing the conjugation and lysis of multiple target cells. CD8A homodimer molecules also contribute to the survival and differentiation of activated lymphocytes into memory CD8 T-cells. The CD8A forms disulfide-linked complexes at the cell surface and also homodimers in various cell types, including NK-cells and peripheral blood T-lymphocytes. It interacts with the MHC class I HLA-A/B2M dimer and with LCK in a zinc-dependent manner.

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

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