

Active Recombinant Human CD8A&CD8B protein, His/FLAG-tagged

Cat. No. CD8A&CD8B-211H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant Human CD8A(Ser22-Asp182) fused with His tag at C-terminal and CD8B(Asn19-Pro170) fused with FLAG tag at N-terminal was expressed in HEK293.

Species

Human

Source

HEK293

ProteinLength

22-182 a.a.

Description

CD8, also known as Ly2 or Leu2, is a heterodimeric glycoprotein (alpha and beta subunits) that functions in conjunction with the T cell receptor in the recognition of MHC class I/peptide complexes. CD8 alpha is expressed on double positive (CD4+ CD8+) thymocytes and mature CD8+ cytolytic T cells (CTL), intraepithelial lymphocytes (IEL), some gamma δ T cells, subsets of thymic and splenic dendritic cells (DC), and peritoneal mast cells. It can form disulfide linked homodimers or heterodimers with CD8 beta. Thymic CD8+ DC express primarily alpha beta heterodimers, while splenic CD8+ DC primarily express alpha alpha homodimers. CD8 alpha + DC can present viral antigenic peptides in complex with MHC I and prime CTL responses. The approximately 35 kDa mature mouse CD8 alpha consists of a 169 amino acid (aa) extracellular domain (ECD) with one Iglike domain, a 21 aa transmembrane segment, and a 30 aa cytoplasmic domain. Within the ECD, mouse CD8 alpha shares 49% and 64% aa sequence identity with human and rat CD8 alpha, respectively.

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Predicted N Terminal	Ser22 (CD8 alpha) & Asn19 (CD8 beta)
Form	Lyophilized from a 0.2 µm filtered solution in PBS.
Bio-activity	Measured by its ability of the immobilized protein to support the adhesion of Jurkat human acute T cell leukemia cells. Bechard, D. et al. (2001) J. Immunol. 167:3099. The ED50 for this effect is 0.8-4 µg/mL.
Molecular Mass	Predicted Molecular Mass: 26 (CD8 alpha) & 26 (CD8 beta) kDa SDS-PAGE: 32-43 kDa, reducing conditions
Endotoxin	<0.1 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 500 µg/mL in PBS.
GENE INFORMATION	
Gene Name	CD8A CD8a molecule [Homo sapiens]
Official Symbol	CD8A
Synonyms	CD8; MAL; p32; Leu2

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Gene ID	925
mRNA Refseq	NM_001145873
Protein Refseq	NP_001139345
MIM	186910
UniProt ID	P01732

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