



**Synonym**

CD8 alpha & beta, CD8A & CD8B

**Source**

Human CD8A&CD8B Heterodimer Protein, His Tag&Tag Free(CDA-H52W5) is expressed from human 293 cells (HEK293). It contains AA Ser 22 - Asp 182 (CD8A) & Leu 22 - Pro 170 (CD8B) (Accession # [P01732-1](#) (CD8A) & [P10966-1](#) (CD8B) ).

Predicted N-terminus: Ser 22 (CD8A) & Leu 22 (CD8B)

**Molecular Characterization**

CD8A (Ser 22 - Asp 182) P01732-1	Acidic Tail	Poly-his
CD8B (Leu 22 - Pro 170) P10966-1	Basic Tail	

Human CD8A&CD8B Heterodimer Protein, His Tag&Tag Free, produced by co-expression of CD8 alpha and CD8 beta, has a calculated MW of 19.5 kDa (CD8 alpha) and 22.1 kDa (CD8 beta). Subunit CD8 alpha is fused with an acidic tail at the C-terminus and followed by a polyhistidine tag and subunit CD8 beta contains no tag but a basic tail at the C-terminus. As a result of glycosylation, the heterodimer protein migrates as 30-32 kDa and 32-34 kDa under reducing (R) condition, and 30-33 kDa and 58-70 kDa under non-reducing (NR) condition (SDS-PAGE).

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>95% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

**Storage**

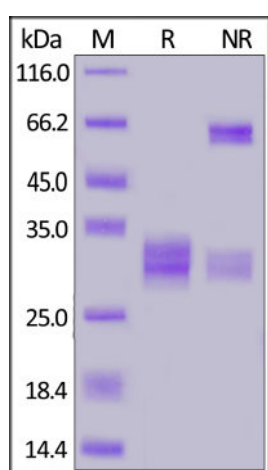
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

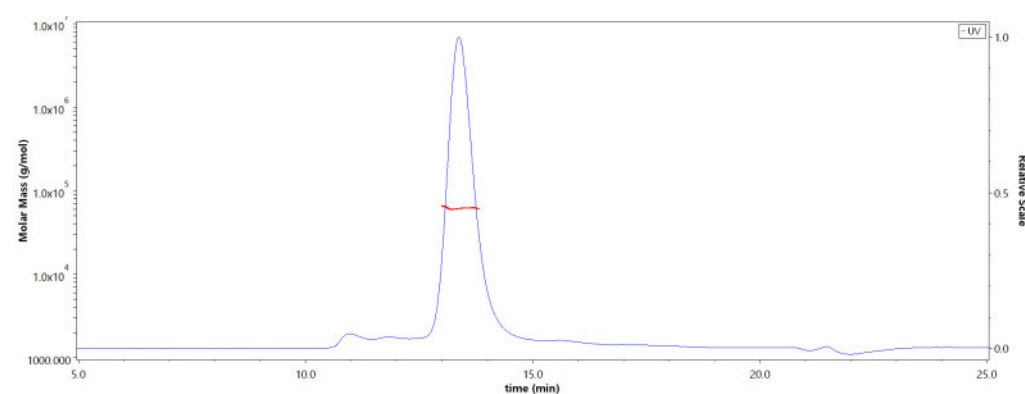
**SDS-PAGE**



Human CD8A&CD8B Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

**Bioactivity-ELISA**

**SEC-MALS**



The purity of Human CD8A&CD8B Heterodimer Protein, His Tag&Tag Free (Cat. No. CDA-H52W5) is more than 85% and the molecular weight of this protein is around 53-68 kDa verified by SEC-MALS.

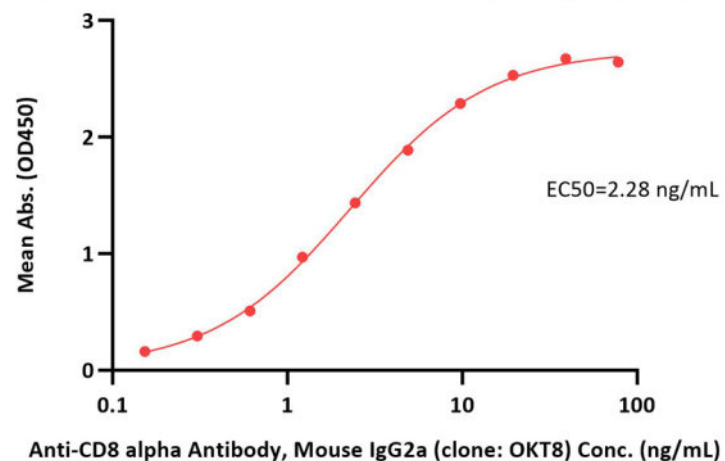
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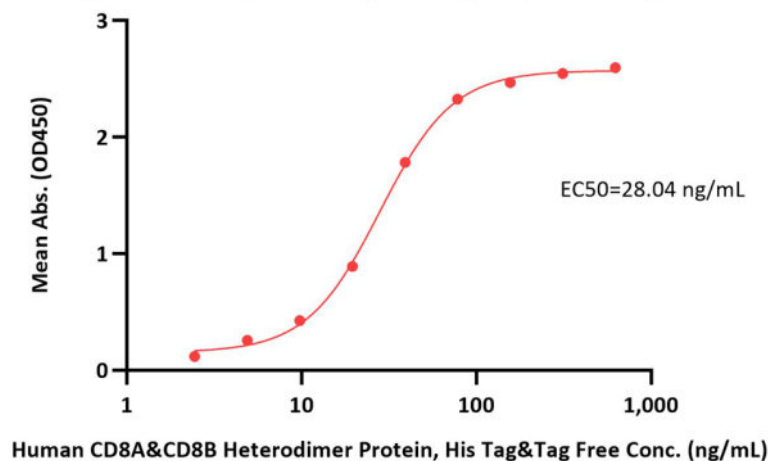




Human CD8A&CD8B Heterodimer Protein, His Tag&Tag Free ELISA  
0.1 µg of Human CD8A&CD8B Heterodimer Protein, His Tag&Tag Free per well



Human CD8A&CD8B Heterodimer Protein, His Tag&Tag Free ELISA  
0.1 µg of Anti-CD8 alpha Antibody, Mouse IgG2a (clone: OKT8) per well



Immobilized Human CD8A&CD8B Heterodimer Protein, His Tag&Tag Free (Cat. No. CDA-H52W5) at 1 µg/mL (100 µL/well) can bind Anti-CD8 alpha Antibody, Mouse IgG2a (clone: OKT8) with a linear range of 0.2-5 ng/mL (QC tested).

Immobilized Anti-CD8 alpha Antibody, Mouse IgG2a (clone: OKT8) at 1 µg/mL (100 µL/well) can bind Human CD8A&CD8B Heterodimer Protein, His Tag&Tag Free (Cat. No. CDA-H52W5) with a linear range of 2-39 ng/mL (Routinely tested).

### Background

Integral membrane glycoprotein that plays an essential role in the immune response and serves multiple functions in responses against both external and internal offenses. CD8A forms disulfide-linked heterodimers with CD8B at the cell surface. CD8A homodimer molecules also promote the survival and differentiation of activated lymphocytes into memory CD8 T-cells. Additionally, CD8B plays a critical role in thymic selection of CD8+ T-cells. A palmitoylation site in the cytoplasmic tail of CD8B chain contributes to partitioning of CD8 into the plasma membrane lipid rafts where signaling proteins are enriched.

### Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.

