Human CD8 alpha&beta (CD8A&CD8B) Heterodimer Protein, Fc Tag&Fc Tag, low endotoxin (MALS verified)

Catalog # CDA-H5253

Synonyms

CD8 alpha & beta, CD8A & CD8B

Source

Human CD8A&CD8B Heterodimer Protein, Fc Tag&Fc Tag (CDA-H5253) is expressed from human 293 cells (HEK293). It contains AA Ser 22 - Asp 182 & Leu 22 - Pro 170 (Accession # P01732-1 & P10966-1).

Predicted N-terminus: Ser 22 & Leu 22

Molecular Characterization

CD8A (Ser 22 - Asp 182) P01732-1	Fc(Pro 100 - Lys 330) P01857-1
CD8B (Leu 22 - Pro 170) P10966-1	Fc(Pro 100 - Lys 330) P01857-1

Human CD8A&CD8B Heterodimer Protein, Fc Tag&Fc Tag, produced by co-expression of CD8 alpha and CD8 beta, has a calculated MW of 44.1 kDa (CD8 alpha) and 43.0 kDa (CD8 beta). Subunit CD8 alpha is fused with a human IgG1 Fc fragment at the C-terminus and subunit CD8 beta is fused with a human IgG1 Fc fragment at the C-terminus. The protein migrates as 50-60 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

The protein is designed as a heterodimer.

Endotoxin

Less than 0.01 EU per μg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

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.

Shipping and Storage

This product is shipped at ambient temperature.

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

Please avoid repeated freeze-thaw cycles.

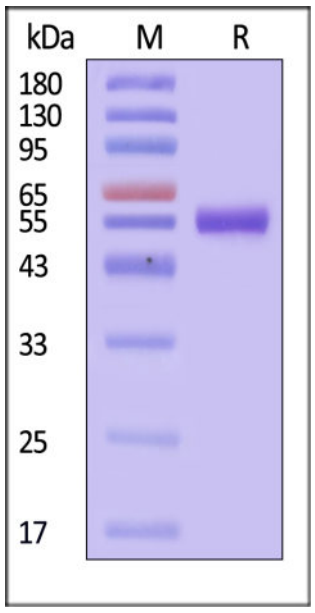
This product is stable after storage at:

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

ACRO Quality Management System

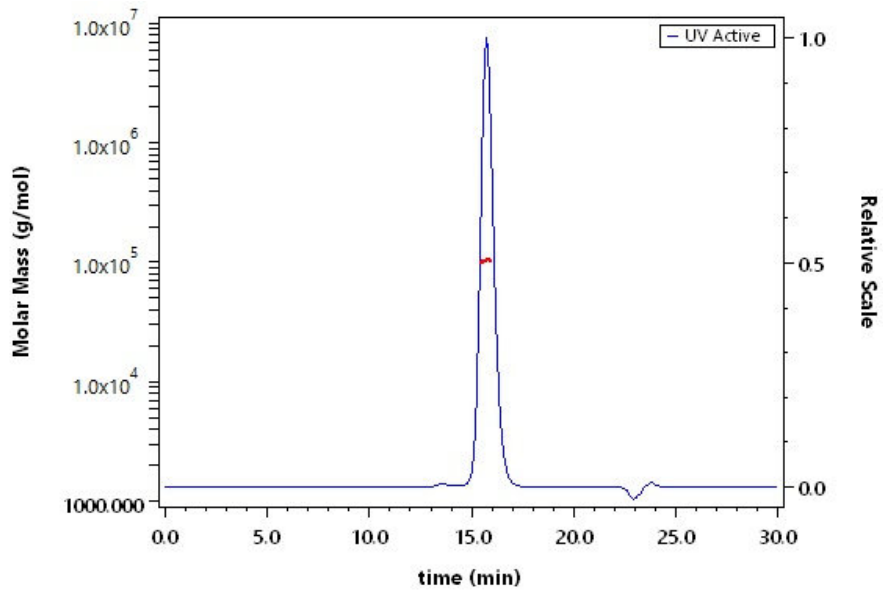
- QMS(ISO, GMP)
- Quality Advantages
- Quality Control Process

SDS-PAGE



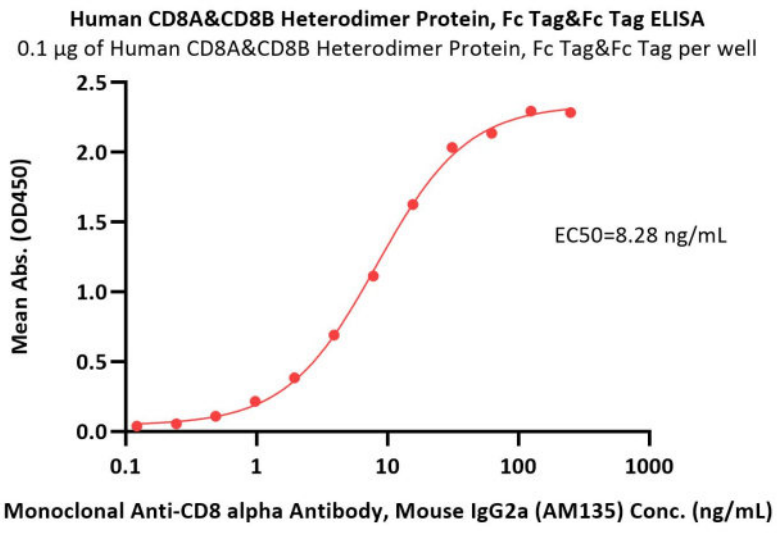
Human CD8A&CD8B Heterodimer Protein, Fc Tag&Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS

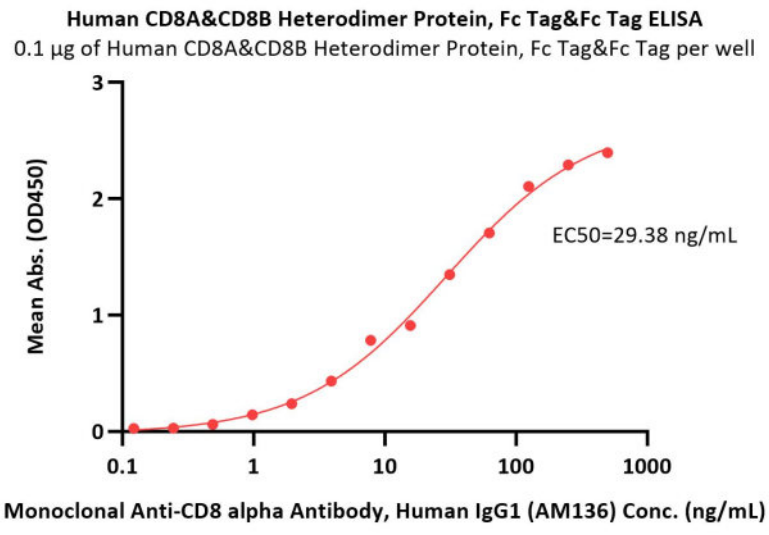


The purity of Human CD8A&CD8B Heterodimer Protein, Fc Tag&Fc Tag (Cat. No. CDA-H5253) is more than 95% and the molecular weight of this protein is around 90-120 kDa verified by SEC-MALS.

Bioactivity-ELISA



Immobilized Human CD8A&CD8B Heterodimer Protein, Fc Tag&Fc Tag (Cat. No. CDA-H5253) at 1 μg/mL (100 μL/well) can bind Monoclonal Anti-CD8 alpha Antibody, Mouse IgG2a (AM135) with a linear range of 0.1-16 ng/mL (QC tested).



Immobilized Human CD8A&CD8B Heterodimer Protein, Fc Tag&Fc Tag (Cat. No. CDA-H5253) at 1 μg/mL (100 μL/well) can bind Monoclonal Anti-CD8 alpha Antibody, Human IgG1 (AM136) with a linear range of 0.1-63 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.