



CD8A,CD8,Leu2,MAL,p32

#### Source

Alexa Fluor 488-Labeled Human CD8 alpha Protein, His Tag (CDA-HA2H6) is expressed from human 293 cells (HEK293). It contains AA Ser 22 - Asp 182 (Accession # P01732-1). It is the Alexa Fluor 488 labeled form of Human CD8 alpha Protein, His Tag.

Predicted N-terminus: Ser 22

### **Molecular Characterization**

CD8A(Ser 22 - Asp 182) P01732-1

Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 19.5 kDa. The protein migrates as 23-30 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

# Conjugate

AF488

Excitation Wavelength: 488 nm

Emission Wavelength: 517 nm

# Labeling

The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with AF488 using standard chemical labeling method. The residual AF488 is removed by molecular sieve treatment during purification process.

# Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method.

### **Purity**

>90% as determined by SDS-PAGE.

#### **Formulation**

Lyophilized from 0.22  $\mu m$  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**

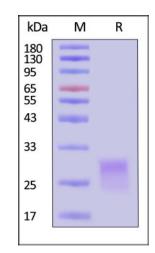
For long term storage, the product should be stored at lyophilized state at -20 $^{\circ}$ C or lower.

Please protect from light and 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**





# Alexa Fluor™ 488-Labeled Human CD8 alpha Protein, His Tag

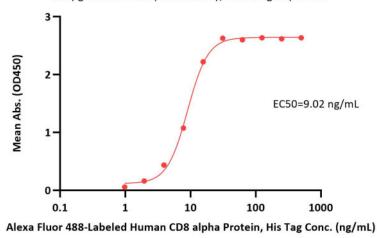




Alexa Fluor 488-Labeled Human CD8 alpha Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

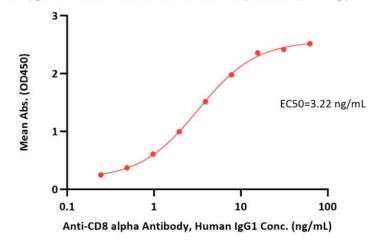
### **Bioactivity-ELISA**

Alexa Fluor 488-Labeled Human CD8 alpha Protein, His Tag ELISA 0.5 µg of Anti-CD8 alpha Antibody, Human IgG1 per well



Immobilized Anti-CD8 alpha Antibody, Human IgG1 at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Alexa Fluor 488-Labeled Human CD8 alpha Protein, His Tag (Cat. No. CDA-HA2H6) with a linear range of 1-16 ng/mL (QC tested).

Alexa Fluor 488-Labeled Human CD8 alpha Protein, His Tag ELISA 0.5 µg of Alexa Fluor 488-Labeled Human CD8 alpha Protein, His Tag per well



Immobilized Alexa Fluor 488-Labeled Human CD8 alpha Protein, His Tag (Cat. No. CDA-HA2H6) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Anti-CD8 alpha Antibody, Human IgG1 with a linear range of 0.2-16 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. Interacts simultaneously with the T-cell receptor (TCR) and the MHC class I proteins presented by antigen presenting cells (APCs). In turn, recruits the Src kinase LCK to the vicinity of the TCR-CD3 complex. In NK-cells, the presence of CD8A homodimers at the cell surface provides a survival mechanism allowing conjugation and lysis of multiple target cells. CD8A homodimer molecules also promote the survival and differentiation of activated lymphocytes into memory CD8 T-cells.

# **Clinical and Translational Updates**

