

#### **Synonym**

CD2,SRBC,LFA-2,T11

#### Source

Human CD2, His Tag(CD2-H5226) is expressed from human 293 cells (HEK293). It contains AA Lys 25 - Asp 209 (Accession # <u>AAH33583</u>). Predicted N-terminus: Lys 25

### **Molecular Characterization**

CD2(Lys 25 - Asp 209) AAH33583

Poly-his

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

The protein has a calculated MW of 22.3 kDa. The protein migrates as 33-40 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### **Endotoxin**

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

#### **Purity**

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

#### **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

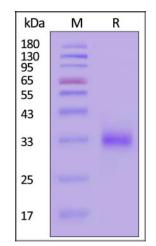
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

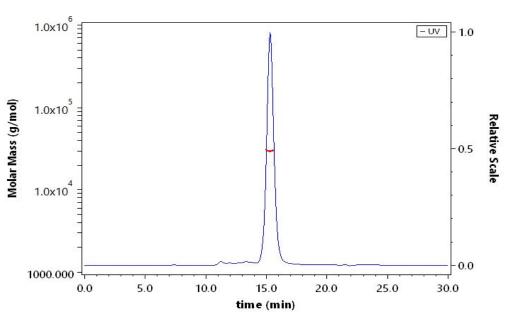
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

# SDS-PAGE



Human CD2, His 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 <u>Star Ribbon Pre-stained Protein Marker</u>).

#### **SEC-MALS**



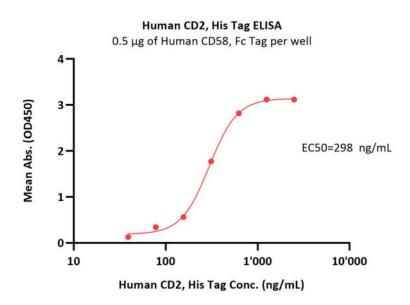
The purity of Human CD2, His Tag (Cat. No. CD2-H5226) is more than 95% and the molecular weight of this protein is around 23-35 kDa verified by SEC-MALS.

Report

### **Bioactivity-ELISA**

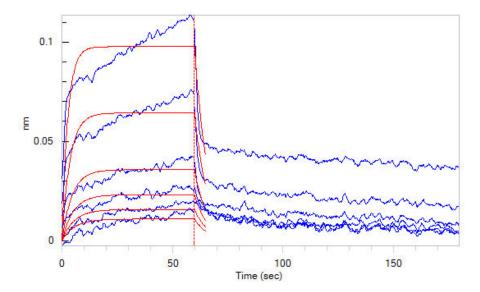




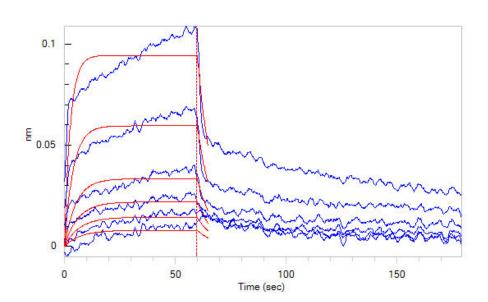


Immobilized Human CD58, Fc Tag (Cat. No. LF3-H5256) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Human CD2, His Tag (Cat. No. CD2-H5226) with a linear range of 39-312 ng/mL (QC tested).

### **Bioactivity-BLI**



Loaded bind Human CD58, Fc Tag (Cat. No. LF3-H5256) on Protein A Biosensor, can bind Human CD2, His Tag (Cat. No. CD2-H5226) with an affinity constant of 0.49  $\mu$ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded bind Human CD58, Fc Tag (Cat. No. LF3-H5256) on AHC Biosensor, can bind Human CD2, His Tag (Cat. No. CD2-H5226) with an affinity constant of  $0.57~\mu M$  as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

## Background

T-cell surface antigen CD2 is also known as Erythrocyte receptor, LFA-2, LFA-3 receptor, Rosette receptor, T-cell surface antigen T11/Leu-5 and SRBC, is a single-pass type I membrane protein found on the surface of T cells and natural killer (NK) cells. CD2 is a member of the immunoglobulin superfamily. CD2 / SRBC contains 1 Ig-like C2-type (immunoglobulin-like) domain and 1 Ig-like V-type (immunoglobulin-like) domain. CD2 / SRBC interacts with other adhesion molecules, such as lymphocyte function-associated antigen-3 (LFA-3 / CD58) in humans, or CD48 in rodents, which are expressed on the surfaces of other cells. In addition to its adhesive properties, CD2 also acts as a co-stimulatory molecule on T and NK cells. CD2 is a specific marker for T cells and NK cells, and can therefore be used in immunohistochemistry to identify the presence of such cells in tissue sections.