# Biotinylated Human CD5 Protein, Fc,Avitag™ (MALS verified)

Catalog # CD5-H82F3



### **Synonym**

CD5,LEU1

#### Source

Biotinylated Human CD5, Fc, Avitag(CD5-H82F3) is expressed from human 293 cells (HEK293). It contains AA Arg 25 - Pro 372 (Accession # P06127-1). Predicted N-terminus: Arg 25

#### **Molecular Characterization**

CD5(Arg 25 - Pro 37	72) Fc(Pro 100 - Lys 330)	Δνί
P06127-1	P01857	ΛVI

This protein carries a human IgG1 Fc tag at the C-terminus, followed by an Avi tag (Avitag<sup>TM</sup>).

The protein has a calculated MW of 66.8 kDa. The protein migrates as 80-100 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Labeling

Biotinylation of this product is performed using Avitag<sup>TM</sup> technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

### **Protein Ratio**

Passed as determined by the HABA assay / binding ELISA.

#### Endotoxin

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

## **Purity**

>95% as determined by SDS-PAGE.

>90% 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

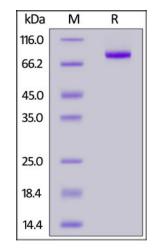
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

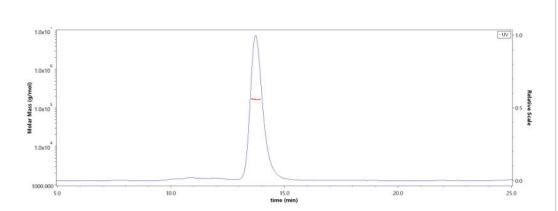
## **SDS-PAGE**



Biotinylated Human CD5, Fc, Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

## **Bioactivity-ELISA**

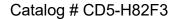
## **SEC-MALS**



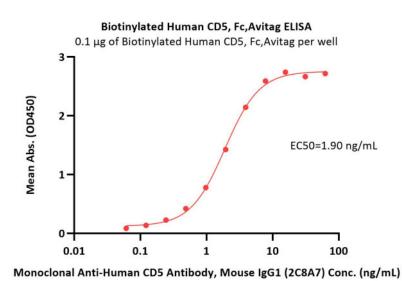
The purity of Biotinylated Human CD5, Fc, Avitag (Cat. No. CD5-H82F3) is more than 90% and the molecular weight of this protein is around 155-175 kDa verified by SEC-MALS.

Report

# Biotinylated Human CD5 Protein, Fc,Avitag™ (MALS verified)







Immobilized Biotinylated Human CD5, Fc,Avitag (Cat. No. CD5-H82F3) at 1  $\mu$ g/mL (100  $\mu$ L/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5  $\mu$ g/well) plate can bind Monoclonal Anti-Human CD5 Antibody, Mouse IgG1 (2C8A7) with a linear range of 0.06-4  $\mu$ g/mL (QC tested).

## Background

T-cell surface glycoprotein CD5 is also known as Lymphocyte antigen T1/Leu-1 and LEU1, which is phosphorylated on tyrosine residues by LYN, so CD5 can create binding sites for PTPN6/SHP-1.CD5 may act as a receptor in regulating T-cell proliferation. CD5 is expressed at various developmental and activation stages on human B cells.CD5 is a well established negative regulator of TCR and BCR signalling.CD5-positive cells may also prevent the emergence of autoimmunity by provision of cytokines such as IL-10. Development, selection and function of different B- and T-cell subsets or their preferential survival may be directly or indirectly dependent on different glycan structures associated with CD5 or CD5-like molecules.

## **Clinical and Translational Updates**

