

**Synonym**

CD7, GP40, TP41, LEU-9, Tp40

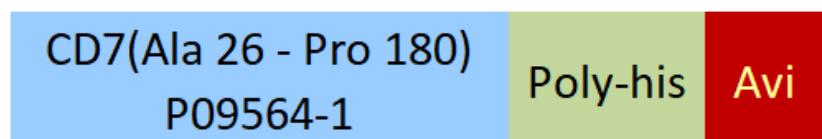
Source

Biotinylated Human CD7 Protein, His,Avitag, premium grade (CD7-H82E4) is expressed from human 293 cells (HEK293). It contains AA Ala 26 - Pro 180 (Accession # [P09564-1](#)).

Predicted N-terminus: Ala 26

It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage.

MBS-C005 is the GMP version of this CD7-H82E4. These two proteins display indistinguishable performance profiles, thereby ensuring a seamless transition for end users from early preclinical stage to later clinical phases.

Molecular Characterization[Other Tags and Version](#) [Biotin & Other Labeled Version](#)

This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 20.0 kDa. The protein migrates as 28-38 kDa under reducing (R) condition, and 26-36 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ 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 0.01 EU per µg by the LAL method / rFC method.

Host Cell Protein

<0.5 ng/µg of protein tested by ELISA.

Host Cell DNA

<0.02 ng/µg of protein tested by qPCR.

Sterility

Negative

Mycoplasma

Negative

Purity

>95% as determined by SDS-PAGE.

>90% 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.

Storage

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

Please avoid repeated freeze-thaw cycles.

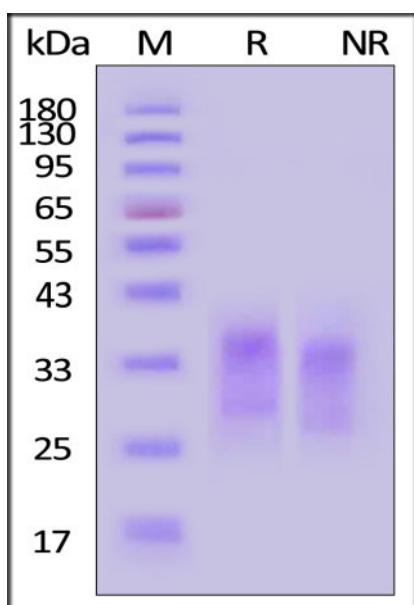
This product is stable after storage at:

- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

ACRO Quality Management System

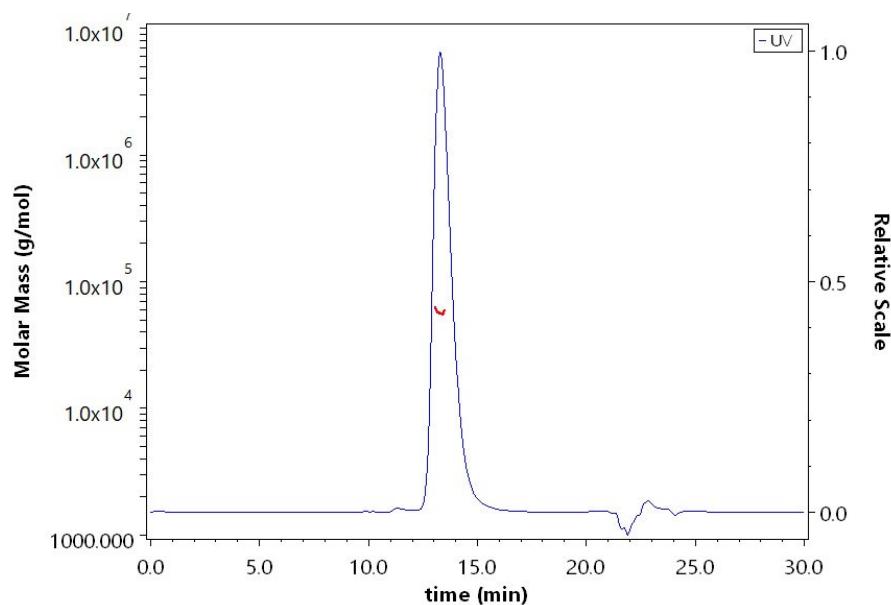
- [QMS \(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



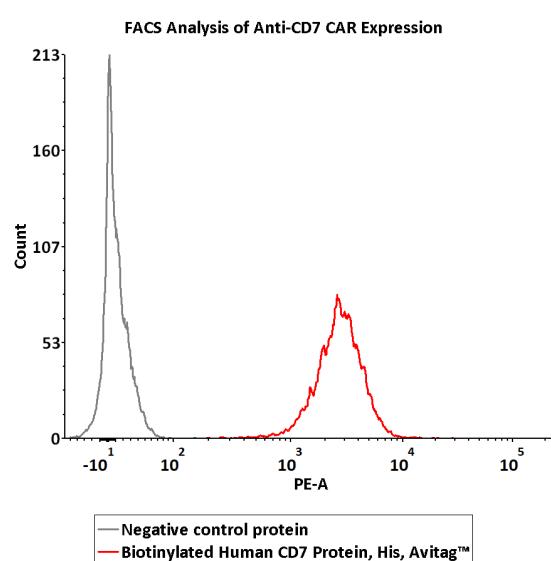
Biotinylated Human CD7 Protein, His,Avitag, premium grade on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



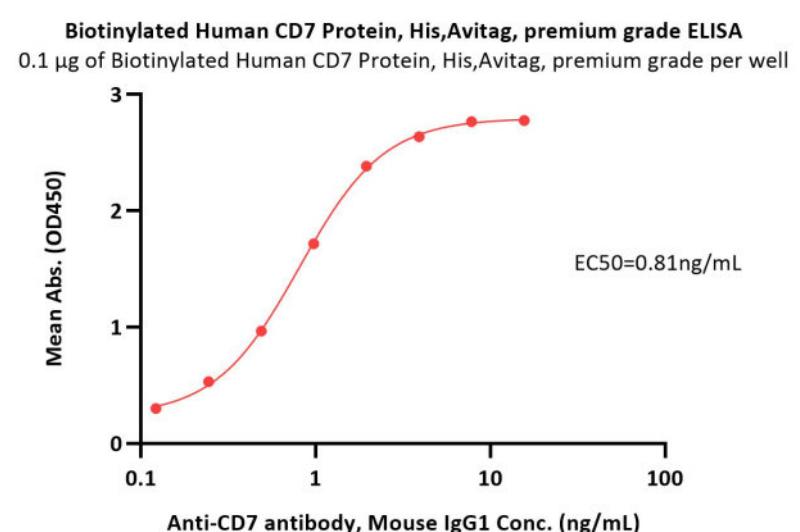
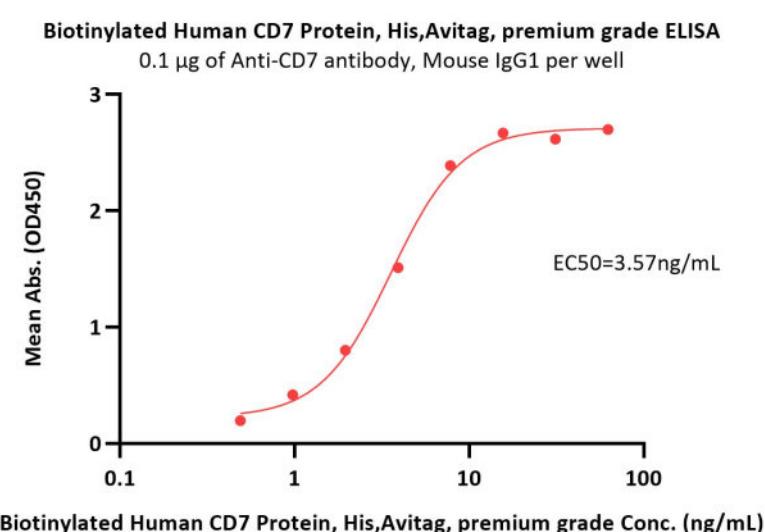
The purity of Biotinylated Human CD7 Protein, His,Avitag, premium grade (Cat. No. CD7-H82E4) is more than 90% and the molecular weight of this protein is around 52-62 kDa verified by SEC-MALS.

Bioactivity-FACS



2e5 of Anti-CD7 CAR-293 cells were stained with 100 μ L of 3 μ g/mL of Biotinylated Human CD7 Protein, His,Avitag, premium grade (Cat. No. CD7-H82E4) and negative control protein respectively, washed and then followed by PE-Streptavidin and analyzed with FACS (QC tested).

Bioactivity-ELISA



Immobilized Anti-CD7 antibody, Mouse IgG1 at 1 μ g/mL (100 μ L/well) can bind Biotinylated Human CD7 Protein, His,Avitag, premium grade (Cat. No. CD7-H82E4) with a linear range of 0.5-8 ng/mL (QC tested).

Immobilized Biotinylated Human CD7 Protein, His,Avitag, premium grade (Cat. No. CD7-H82E4) at 1 μ g/mL (100 μ L/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μ g/well) plate can bind Anti-CD7 antibody, Mouse IgG1 with a linear range of 0.1-2 ng/mL (Routinely tested).

Background

T-cell antigen CD7 (CD7) is also known as GP40, LEU-9, TP41 and Tp40. CD7 is a protein that in humans is encoded by the CD7 gene, this gene encodes a transmembrane protein which is a member of the immunoglobulin superfamily. CD7 has been shown to interact with PIK3R1. This protein is found on thymocytes and mature T cells. It plays an essential role in T-cell interactions and also in T-cell/B-cell interaction during early lymphoid development.

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