# Biotinylated Human CEACAM-5 / CD66e Protein, His,Avitag™ (MALS verified)

Catalog # CE5-H82E0



## Synonym

CEACAM-5,CD66e,CEA,Meconium antigen 100

#### Source

Biotinylated Human CEACAM-5, His, Avitag(CE5-H82E0) is expressed from human 293 cells (HEK293). It contains AA Lys 35 - Ala 685 (Accession # P06731-1).

Predicted N-terminus: Lys 35

## **Molecular Characterization**

CEACAM-5(Lys 35 - Ala 685)
P06731-1
Poly-his Avi

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

The protein has a calculated MW of 75.0 kDa. The protein migrates as 90-120 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 0.1 EU per µg by the LAL method.

## **Purity**

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

#### **Formulation**

Lyophilized from  $0.22 \mu m$  filtered solution in 20 mM Tris, 150 mM Potassium glutamate, pH7.5 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

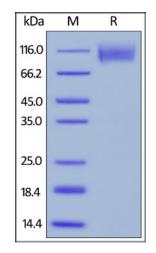
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

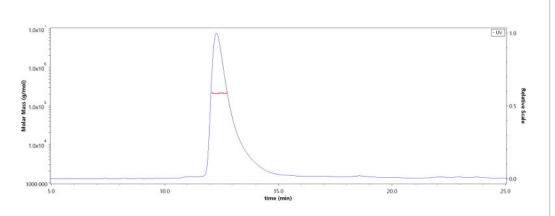
# **SDS-PAGE**



Biotinylated Human CEACAM-5, His, Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

# **Bioactivity-ELISA**

# **SEC-MALS**

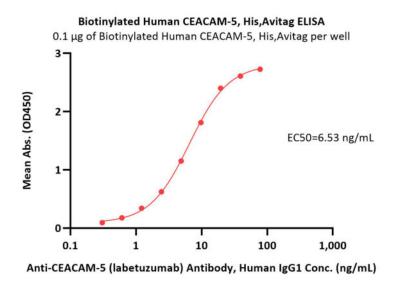


The purity of Biotinylated Human CEACAM-5, His, Avitag (Cat. No. CE5-H82E0) is more than 90% and the molecular weight of this protein is around 205-220 kDa verified by SEC-MALS.

Report





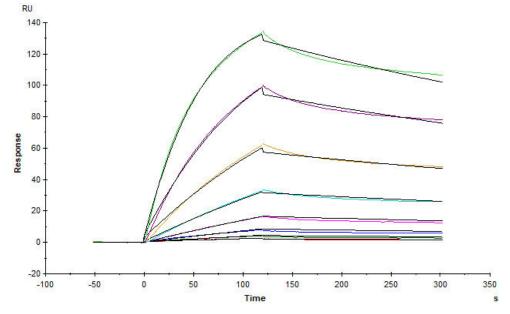


Immobilized Biotinylated Human CEACAM-5, His,Avitag (Cat. No. CE5-H82E0) at 1  $\mu$ g/mL (100  $\mu$ L/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5  $\mu$ g/well) plate. can bind Anti-CEACAM-5 (labetuzumab) Antibody, Human IgG1 with a linear range of 0.3-10 ng/mL (QC tested).

# Biotinylated Human CEACAM-5, His,Avitag ELISA 0.1 µg of Anti-CEACAM-5 (labetuzumab) Antibody, Human IgG1 per well 2 EC50=13.52 ng/mL 1 10 100 1,000 Biotinylated Human CEACAM-5, His,Avitag Conc. (ng/mL)

Immobilized Anti-CEACAM-5 (labetuzumab) Antibody, Human IgG1 at 1 μg/mL (100 μL/well) can bind Biotinylated Human CEACAM-5, His,Avitag (Cat. No. CE5-H82E0) with a linear range of 0.6-20 ng/mL (Routinely tested).

## **Bioactivity-SPR**



Anti-CEACAM-5 (labetuzumab) Antibody, Human IgG1 captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Biotinylated Human CEACAM-5, His,Avitag (Cat. No. CE5-H82E0) with an affinity constant of 12.1 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

## Background

Carcinoembryonic antigen-related cell adhesion molecule 5 (CEACAM5) is also Carcinoembryonic antigen (CEA), Meconium antigen 100, CD antigen CD66e, CEACAM5 belongs to the immunoglobulin superfamily and CEA family. CEACAM5 contains seven Ig-like (immunoglobulin-like) domains. CEACAM5 is homodimer protein which binding of E.coli Dr adhesins leads to dissociation of the homodimer. CEACAM5 is cell surface glycoprotein that plays a role in cell adhesion and in intracellular signaling. CEACAM5 is receptor for E.coli Dr adhesins.

# **Clinical and Translational Updates**

