



# Synonym

CEACAM-5,CD66e,CEA,Meconium antigen 100

### Source

Human CEACAM-5, His Tag(CE5-H5226) is expressed from human 293 cells (HEK293). It contains AA Lys 35 - Ala 685 (Accession # P06731). Predicted N-terminus: Lys 35

### **Molecular Characterization**

CEACAM-5(Lys 35 - Ala 685) P06731

Poly-his

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

The protein has a calculated MW of 72.2 kDa. The protein migrates as 100-130 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Endotoxin

Less than 0.1 EU per µg by the LAL method.

# **Purity**

>95% as determined by SDS-PAGE.

>95% 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

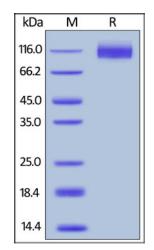
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

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

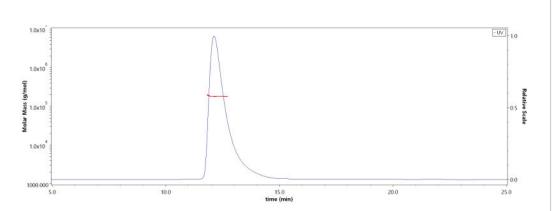
# **SDS-PAGE**



Human CEACAM-5, 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%.

# **Bioactivity-ELISA**

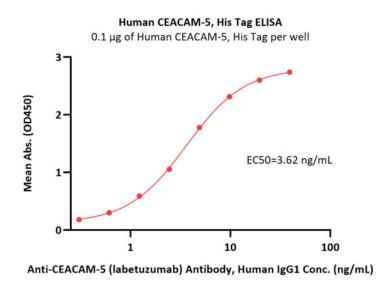
# **SEC-MALS**



The purity of Human CEACAM-5, His Tag (Cat. No. CE5-H5226) is more than 95% and the molecular weight of this protein is around 170-200 kDa verified by SEC-MALS.

<u>Report</u>



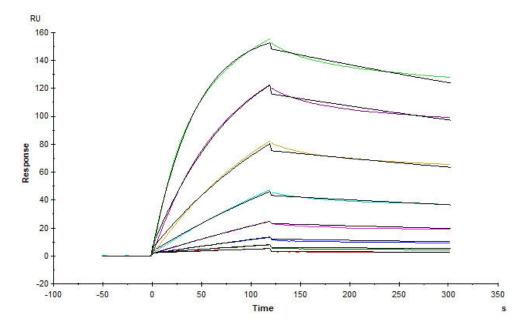


Immobilized Human CEACAM-5, His Tag (Cat. No. CE5-H5226) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Anti-CEACAM-5 (labetuzumab) Antibody, Human IgG1 with a linear range of 0.3-5 ng/mL (QC tested).

# Human CEACAM-5, His Tag ELISA 0.1 μg of Anti-CEACAM-5 (labetuzumab) Antibody, Human lgG1 Antibody per well 2 EC50=24.12 ng/mL 1 10 100 1,000 Human CEACAM-5, His Tag Conc. (ng/mL)

Immobilized Anti-CEACAM-5 (labetuzumab) Antibody, Human IgG1 Antibody at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Human CEACAM-5, His Tag (Cat. No. CE5-H5226) with a linear range of 10-39 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 Human CEACAM-5, His Tag (Cat. No. CE5-H5226) with an affinity constant of 8.41 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**

