# Human CEACAM5 / CD66e Protein (His Tag)

**Catalog Number:** 11077-H08H

## General Information

**Gene Name Synonym:**

CD66e; CEA

**Protein Construction:**

A DNA sequence encoding the mature form of human CEACAM5 (NP_004354.2) (Met 1-Ala 685) was fused with a polyhistidine tag at the C-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** ≥ 95 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC.

**Endotoxin:**

< 1.0 EU per μg of the protein as determined by the LAL method

**Predicted N terminal:** Lys 35

**Molecular Mass:**

The secreted recombinant human CEACAM5 consists of 662 amino acids and has a predicted molecular mass of 72.8 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of human CEACAM5 is approximately 128 and 154.7 kDa due to different glycosylation.

**Formulation:**

Lyophilized from sterile 20mM Tris, 150mM NaCl, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

**Stability & Storage:**
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

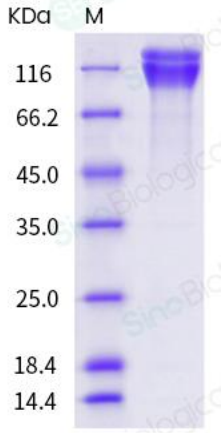
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

**Reconstitution:**

Detailed reconstitution instructions are sent along with the products.

**SDS-PAGE:**




## Protein Description

CEACAM5, also known as CEA or D66e, belongs to the large CEACAM subfamily of immunoglobulin superfamily. CEACAM5 is expressed primarily by epithelial cells, and is synthesized as a glycoprotein with a MW of 18 kDa comprising 6% carbohydrate. CEACAM5 contains one Ig-like V-type domain at the N-terminus, followed by six Ig-like C2-type domain and a GPI anchor, and exists as a homodimer. CEACAM5 and CEACAM6 are overexpressed in many cancers and are associated with adhesion and invasion. CEACAM5 can mediate cell-cell adhesion through homotypic and heterotypic interactions. It functions as a homotypic intercellular adhesion molecule and serves as a widely used tumor marker, since it is expressed at higher levels in tumorous tissues than in corresponding normal tissues. CEACAM5 has also been shown to contribute to tumorigenicity by inhibiting cellular differentiation. In addition, CEACAM5 is identified as the host receptor for the Dr family of adhesins of E.Coli, and the binding of E.coli Dr adhesins leads to dissociation of the CEACAM5 homodimer.

**References**

1.Baczyska D, et al. (2003) The tumorigenic potential of human CX-1 colon adenocarcinoma cells depends on carcinoembryonic antigen (CEACAM5) expression. Cell Mol Biol Lett. 8(2): 471-86.
2.Blumenthal RD, et al. (2005) Inhibition of adhesion, invasion, and metastasis by antibodies targeting CEACAM6 (NCA-90) and CEACAM5 (Carcinoembryonic Antigen). Cancer Res. 65(19): 8809-17.
3.Liebig B, et al. (2005) Forced expression of deltaN-TCF-1B in colon cancer derived cell lines is accompanied by the induction of CEACAM5/6 and mesothelin. Cancer Lett. 223(1): 159-67.