

# Recombinant Human CD66a/CEACAM1 Protein

Catalog No.: RP00294 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	634	P13688-1

### Tags

C-His

### Synonyms

BGP; BGP1; BGPI;CEACAM1;BGP1;BGPI

## Product Information

Source	Purification
HEK293 cells	> 97% by SDS-PAGE.

### Endotoxin

Please contact us for more information.

### Formulation

Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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## Background

The secreted recombinant human CEACAM1 comprises 405 amino acids with a molecular weight of 45 kDa. The apparent molecular mass of recombinant human CEACAM1 is about 65-85 kDa in SDS-PAGE under reducing conditions due to glycosylation. Carcinoembryonic antigen-related cell adhesion molecule 1 (CEACAM1) is also known as Biliary glycoprotein 1 (BGP1), CD66a belonging to the immunoglobulin superfamily or CEA family. CEACAM1 /CD66a contains three Ig-like C2-type (immunoglobulin-like) domains and one Ig-like V-type (immunoglobulin-like) domain. CEACAM1 is a surface glycoprotein expressed on various blood cells, epithelial cells, and vascular cells and was described as an adhesion molecule mediating cell adhesion via both homophilic and heterophilic manners, and was detected on leukocytes, epithelia, and endothelia. The carcinoembryonic antigen-related cell-adhesion molecule (CEACAM) family of proteins has been implicated in various intercellular-adhesion and intracellular-signalling-mediated effects that govern the growth and differentiation of normal and cancerous cells. Studies have revealed that CEACAM1 performs actions in multiple cellular processes including tissue differentiation, angiogenesis, apoptosis, metastasis, as well as the modulation of innate and adaptive immune responses.

## Basic Information

### Description

Recombinant Human CEACAM-1/CD66a Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Gln35-Gly428) of human CEACAM1 (Accession #NP\_001703.2) fused with a 6×His tag at the C-terminus.

### Bio-Activity

Measured by its binding ability in a functional ELISA. Immobilized Recombinant Human CEACAM1 at 5 µg/mL (100 µL/well) can bind Recombinant Human CEACAM8 with a linear range of 0.5-3 µg/mL.

### Storage

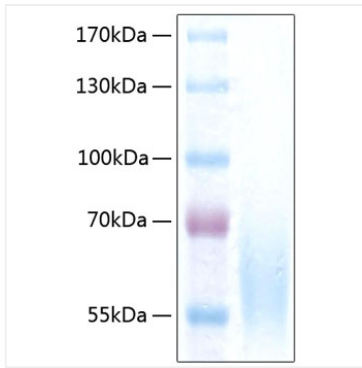
Store the lyophilized protein at -20°C to -80 °C for long term.

After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week.

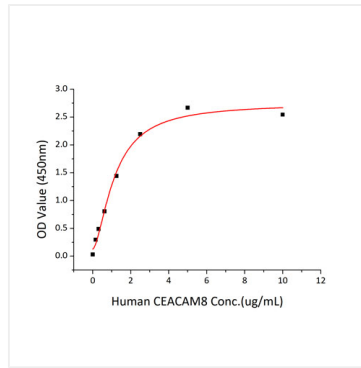
Avoid repeated freeze/thaw cycles.

## Validation Data

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Recombinant Human CEACAM-1/CD66a Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 55-70 kDa.



Immobilized Recombinant Human CEACAM1 at 5  $\mu\text{g/mL}$  (100 $\mu\text{L}$ /well) can bind Recombinant Human CEACAM8 with a linear range of 0.5-3  $\mu\text{g/mL}$ .