

## CEACAM1 Protein, Human, Recombinant (His)

### General Information

Synonyms:	CEACAM-1;BGP1;BGP;carcinoembryonic antigen-related cell adhesion molecule 1 (biliary glycoprotein);BGPI;CD66a
Protein Construction:	Gln35-Gly428
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P13688-1
Molecular Weight:	44.4 kDa (predicted); 68-115 kDa (reducing condition, due to glycosylation)

### QC Testing

Biological Activity:	Immobilized Human CEACAM-1 at 0.5 µg/ml (100 µl/well) on the plate. Dose response curve for Anti-CEACAM-1 Antibody, hFc Tag with the EC50 of 3.2 ng/ml determined by ELISA (QC Test). Human CEACAM-1, His Tag immobilized on CM5 Chip can bind Human CEACAM-7, His Tag with an affinity constant of 0.37 µM as determined in SPR assay (Biacore T200).
Purity:	> 95% as determined by Bis-Tris PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Carcinoembryonic antigen-related cell adhesion molecule 1 (CEACAM-1) is the major antigen of the CD66 cluster of

granulocyte differentiation antigens. The present study aimed to assess the biological function of CEACAM-1 on the growth of human colorectal cancer (CRC) cells in vitro.

### Reference

Gray-Owen SD, et al. (2006) CEACAM1: contact-dependent control of immunity. *Nat Rev Immunol.* 6(6): 433-46.

Gu A, et al. (2009) Role of Ceacam1 in VEGF induced vasculogenesis of murine embryonic stem cell-derived embryoid bodies in 3D culture. *Exp Cell Res.* 315(10): 1668-82.

Wong C, et al. (2009) CEACAM1 negatively regulates platelet-collagen interactions and thrombus growth in vitro and in vivo. *Blood.* 113(8): 1818-28.

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