

Human CEACAM1 / CD66a Protein (His Tag)

Catalog Number: 10822-H08H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

BGP; BGP1; BGPI; CD66a; CEACAM?1; bb-1; Bgp; Bgp1; C-CAM; Cc1; CD66a; Cea-1; Cea-7; Cea1; Cea7; Hv-2; Hv2; mCEA1; Mhv-1; MHVR; MHVR1; mmCGM1; mmCGM1a; mmCGM2

Protein Construction:

A DNA sequence encoding the extracellular domain of human CEACAM1 (NP_001020083.1) (Met 1-Gly 428) was expressed with a C-terminal polyhistidine tag.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its ability to bind biotinylated Human CEACAM6-His (Cat:10823-H08H) in functional ELISA. 2. Measured by its ability to bind biotinylated Human CEACAM8-His (Cat:11729-H08H) in functional ELISA.

Endotoxin:

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

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Gln 35

Molecular Mass:

The secreted recombinant human CEACAM1 comprises 405 amino acids and predicts a molecular mass of 45 kDa. As a result of glycosylation, the apparent molecular mass of rhCEACAM1 is approximately 65-85 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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

Storage:

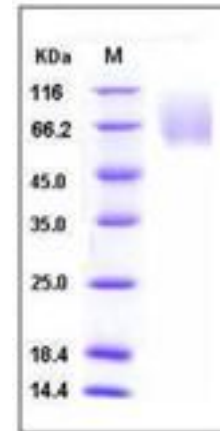
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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. CEACAM1, also known as biliary glycoprotein I (BGP I) and CD66a, is a member of the carcinoembryonic antigen (CEA) gene family which belongs to the immunoglobulin superfamily. The highly glycosylated CEACAM1 contains one N-terminal V-type Ig-like domain and three C2-type Ig-like domains within its ECD, and one ITIM motif and a calmodulin binding site in the cytoplasmic region. CEACAM1 is a surface glycoprotein expressed on various blood cells, epithelial cells, and vascular cells. It was described as an adhesion molecule mediating cell adhesion via both homophilic and heterophilic manners, and was detected on leukocytes, epithelia, and endothelia. 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.

References

- 1.Gray-Owen SD, *et al.* (2006) CEACAM1: contact-dependent control of immunity. *Nat Rev Immunol.* 6(6): 433-46.
- 2.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.
- 3.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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