Mouse CEACAM1 / CD66a Protein (His Tag)

Catalog Number: 50571-M08H

General Information

Gene Name Synonym:
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 mouse CEACAM1 (NP_001034274.1) (Met 1-Gly 428) was expressed, with a polyhistidine tag at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

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: Glu 35

Molecular Mass:
The recombinant mouse CEACAM1 consists of 405 amino acids and has a predicted molecular mass of 45 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rmCEACAM1 is approximately 70-100 kDa due to high glycosylation.

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.

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