Human CEACAM3 / CD66d Protein (His Tag)

Catalog Number: 11933-H08H

General Information

Gene Name Synonym:

CD66D; CEA; CGM1; MGC119875; W264; W282

Protein Construction:

A DNA sequence encoding the human CEACAM3 (NP_001806.2) extracellular domain (Met 1-Gly 155) was expressed, with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: ≥ 95 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC.

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 ℃

Predicted N terminal: Lys 35

Molecular Mass:

The recombinant human CEACAM3 consists of 132 amino acids and predictes a molecular mass of 14.5 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhCEACAM3 is approximately 18-23 kDa due to 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:

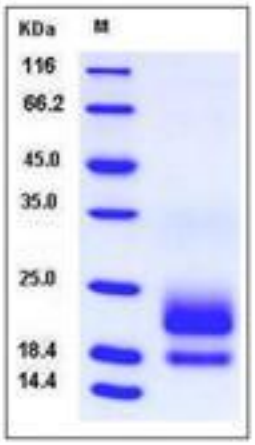
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

CeACAM3 (CD66d), a member of carcinoembryonic antigen family, is a granulocyte-specific receptor involved in the opsonin-independent recognition of several bacterial pathogens. There are four members in this family: CD66a, CD66b, CD66c, and CD66d. Members of CEACAM family are widely expressed especially on human neutrophils, and, depending on the tissue, capable of regulating diverse functions including tumor promotion, tumor suppression, angiogenesis, and neutrophil activation. Abnormal overexpression and downregulation of some CEACAMs have been described in tumor cells. Monoclonal antibodies grouped in the CD66 cluster recognize CEACAM members. Ectopic CD66 expression is commonly detected in B-cell lineage acute lymphoblastic leukemia (ALL). CEACAM3 mediates phagocytosis depends on the integrity of an ITAM-like sequence within the cytoplasmic domain of CEACAM3. CEACAM3 is characterized by rapid stimulation of the GTPase Rac.

References

1.Schmitter T, *et al.* (2007) The Granulocyte Receptor Carcinoembryonic Antigen-Related Cell Adhesion Molecule 3 (CEACAM3) Directly Associates with Vav to Promote Phagocytosis of Human Pathogens. The journal of immunology. 178: 3797-805. 2.Swanson KV, *et al.* (2001) CEACAM is not necessary for Neisseria gonorrhoeae to adhere to and invade female genital epithelial cells. Cellular Microbiology. 3 (10): 681-91. 3.Hasselbalch HC, *et al.* (2011) High expression of carcinoembryonic antigen-related cell adhesion molecule (CEACAM) 6 and 8 in primary myelofibrosis. Leukemia Research.