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Recombinant Human CEACAM1 protein fragment

REP0067
100µg

Description

The carcinoembryonic antigen (CEA) family is composed of 29 genes tandemly arranged on chromosome 19q13.2. Based on nucleotide homologies, these genes are classified into 2 major subfamilies, the CEACAM and the pregnancy-specific glycoprotein (PSG) subgroups. The CEACAM-encoded proteins include CEA, CEACAM1, and other CEA gene members. CEACAM1 (Carcinoembryonic antigen related cell adhesion molecule 1; also BGP1, CD66a), is involved in the regulation of important biological processes, such as insulin homeostasis, angiogenesis, and modulation of the immune response. Expression of CEACAM1 is associated with the progression of malignancy and metastatic spread in a large array of cancer tissues which include melanoma, Non-Small Cell Lung Carcinoma (NSCLC) bladder, prostate, thyroid, breast, colon and gastric carcinomas. In addition, CEACAM1 has also been identified as receptors for host-specific viruses and bacteria in mice and humans such as *Neisseria*, *Haemophilus influenzae*, *Moraxella catarrhalis* and mouse hepatitis virus (MHV). The binding of Opa (the neisserial colony opacity associated) proteins occurs at the non-glycosylated face of the N-domain of CEACAM1; heterophilic adhesion facilitates bacterial colonization of the gut and bacterial phagocytosis by neutrophils; and is involved in the granulocytes migration during inflammatory responses. The N-terminal domain of CEACAM1 has been implicated also in mediating homophilic adhesion. This is an important factor for the embryonic organization of the intestinal epithelium and hepatocytes in the liver, in placental trophoblasts, during muscle and tooth development and vascularisation of the central nervous system, in angiogenesis and in the negative regulation of cell proliferation.

Product type

Recombinant protein fragment

Protein fragment

The 35-235 residues of human CEACAM1 isoform CEACAM1a-4L comprising the N-terminal Ig-V like domain, D1 (aa 35-140) and the first Ig-C2 like domain, A1 (aa 146-235).
SWS/UNP Accession(s) number: **NP_001020083.1**

Expression system

Escherichia coli

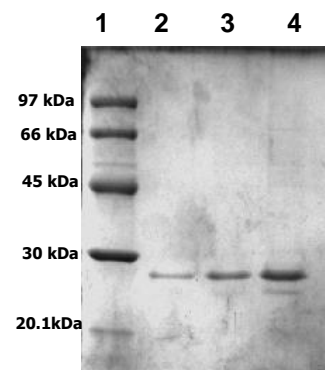
Tested by

SDS Page, Western Blotting, ELISA

Purity

>95% pure estimated by SDS-PAGE (EU Ph. 5.0 § 2.5.31)

Purified recombinant human CEACAM 1(lane 1, molecular weight standard; lane 2, 1g; lane 3, 2.5g; lane 4, 5g) was separated by SDS-PAGE (12% polyacrylamide) and stained with Coomassie Blue.



Form

Liquid

Storage buffer

20 mM Phosphate buffer pH 7.5; 0.5M sodium chloride; 1.5Mm EDTA, 10% glycerol.

Storage instructions

Shipped on dry ice. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.