CEACAM5 / CD66e Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	CEACAM5 / CD66e, Recombinant Protein
Full Product Name	Recombinant Human CEACAM5 / CD66e Protein (His tag)
Product Gene Name	CEACAM5 / CD66e recombinant protein
Product Synonym Names	CD66e, CEA, DKFZp781M2392, CEACAM5
Host	Human Cells
Form/Format	Lyophilized from sterile PBS, pH 7.4
Purity/Purification	> 95 % as determined by SDS-PAGE
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -70 degree C
Molecular Weight	76,724 Da
OMIM	M17303 Genomic DNA
Predicted N Terminal	Lys 35
Endotoxin	< 1.0 EU per mug of the protein as determined by the LAL method
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Application Notes for CEACAM5 / CD66e recombinant protein	The secreted recombinant human CEACAM5 consists of 662 amino acids and has a predicted molecular mass of 72.8 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhCEACAM5 is approximately 100-110 kDa due to glycosylation.
Related Product Information for CEACAM5 / CD66e recombinant protein	Background: CEACAM5, also known as CEA or D66e, belongs to the large CEACAM subfamily of immunoglobulin superfamily. CEACAM5 is expressed primarily by epithelial cells, and is synthesized as a glycoprotein with a MW of 180 kDa comprising 60% carbohydrate. CEACAM5 contains one Ig-like V-type domain at the N-terminus, followed by six Ig-like C2-type domain and a GPI anchor, and exists as a homodimer. CEACAM5 and CEACAM6 are overexpressed in many cancers and are associated with adhesion and invasion. CEACAM5 can mediate cell-cell adhesion through homotypic and heterotypic interactions. It functions as a homotypic intercellular adhesion molecule and serves as a widely used tumor marker, since it is expressed at higher levels in tumorous tissues than in corresponding normal tissues. CEACAM5 has also been shown to contribute to tumorigenicity by inhibiting cellular differentiation. In addition, CEACAM5 is identified as the host receptor for the Dr family of adhesins of E.Coli, and the binding of E.coli Dr adhesins leads to dissociation of the CEACAM5 homodimer. Description: A DNA sequence encoding the mature form of human CEACAM5 (NP_004354.2) (Met 1-Ala 685) was fused with a polyhistidine tag at the C-terminus.
Other Notes	Small volumes of CEACAM5 / CD66e recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CEACAM5 / CD66e purchase	MBS2545929 is a recombinant protein targeting CEACAM5 / CD66e. Also known as Recombinant Human CEACAM5 / CD66e Protein (His tag). Host: Human Cells.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CEACAM5 / CD66e. It may not necessarily be applicable to this product.

NCBI GI #	98986445
NCBI GeneID	1048

NCBI Accession #	NP_004354.2
UniProt Secondary Accession #	H9KVA7
UniProt Related Accession #	P06731
GenBank Nucleotide #	NM_004363.3
NCBI Official Full Name	carcinoembryonic antigen-related cell adhesion molecule 5 preproprotein
NCBI Official Synonym Full Names	carcinoembryonic antigen related cell adhesion molecule 5
NCBI Official Symbol	CEACAM5
NCBI Official Synonym Symbols	CEA; CD66e
UniProt Protein Name	Carcinoembryonic antigen-related cell adhesion molecule 5
UniProt Synonym Protein Names	Carcinoembryonic antigen; CEA; Meconium antigen 100; CD_antigen: CD66e
UniProt Gene Name	CEACAM5
UniProt Synonym Gene Names	CEA; CEA
NCBI Protein Information	carcinoembryonic antigen-related cell adhesion molecule 5
NCBI Summary for CEACAM5 / CD66e	This gene encodes a cell surface glycoprotein that represents the founding member of the carcinoembryonic antigen (CEA) family of proteins. The encoded protein is used as a clinical biomarker for gastrointestinal cancers and may promote tumor development through its role as a cell adhesion molecule. Additionally, the encoded protein may regulate differentiation, apoptosis, and cell polarity. This gene is present in a CEA family gene cluster on chromosome 19. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2015]
UniProt Comments for CEACAM5 / CD66e	CEACAM5: Cell surface glycoprotein that plays a role in cell adhesion and in intracellular signaling. Receptor for E.coli Dr adhesins. Homodimer. Binding of E.coli Dr adhesins leads to dissociation of the homodimer. Found in adenocarcinomas of endodermally derived digestive system epithelium and fetal colon. Belongs to the immunoglobulin superfamily. CEA family. Protein type: Immunoglobulin superfamily; Membrane protein, GPI anchor; Membrane protein, integral Chromosomal Location of Human Ortholog: 19q13.2 Cellular Component: basolateral plasma membrane; integral to plasma membrane Molecular Function: identical protein binding; protein homodimerization activity Biological Process: homotypic cell-cell adhesion; negative regulation of apoptosis
Research Articles on CEACAM5 / CD66e	**1.** ZKSCAN3 appears to promote colorectal tumor progression and invasion. ZKSCAN3 may facilitate hepatic metastasis of CRC associated with CEA particularly in cases with CEA-producing tumor
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