Human CellExp™ CEACAM1/CD66a Extracellular Domain (ED), Human Recombinant

CATALOG NO:	P1245-10	10 µg
	P1245-50	50 µg
	P1245-250	250 µg
	P1245-1000	1 mg

ALTERNATE NAMES: Carcinoembryonic antigen-related cell adhesion molecule 1, BGP, BGP1, BGPI, CD66a, CEACAM-1, CEACAM1, CEAM1

SOURCE: HEK 293 cells (Gln 35 - Gly 428)

PURITY: > 95% by SDS-PAGE

MOL. WEIGHT: This protein is fused with polyhistidine tag at the C-terminus and has a calculated MW of ~45 kDa (35 - 428 aa). Under reducing conditions the protein migrates as ~100 kDa (monomer) in SDS-PAGE due to significant glycosylation modification. SEC analysis shows the native size of CEACAM-1 homodimer at about 160kD.

FORM: Lyophilized

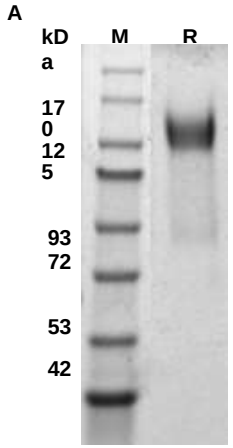
FORMULATION: Lyophilized from 0.22 µm filtered solution in PBS pH 7.4

STORAGE CONDITIONS: Store at -20°C. After reconstitution, aliquot and store at -80°C. Avoid repeated freezing and thawing cycles.

RECONSTITUTION: Centrifuge the vial prior to opening. Reconstitute in distilled water to a concentration up to 0.2 mg/ml.

DESCRIPTION: CEACAM1, also known as biliary glycoprotein I (BGP I) or CD66a, is an extensively studied cell surface molecule with established functions in multiple cancer types, as well as in various compartments of the immune system. The highly glycosylated CEACAM1 contains a 35-428 amino acid extracellular domain (ECD) which includes one N-terminal V-type Ig-like domain, followed by three C2-type Ig-like domains. 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 binding, 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.

BIOLOGICAL ACTIVITY: Measured by its binding ability in a functional ELISA. Biotinylated CEACAM1 can bind immobilized Human Tim3 (0.05 µg/ml of 100 µl/well) with a linear range of 0.08-10 µg/ml.



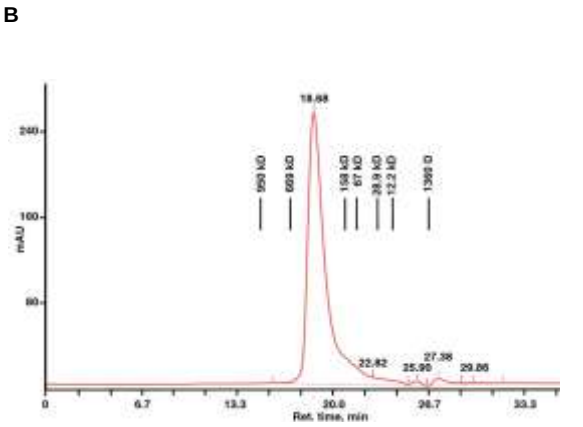


Fig A. SDS-PAGE (4-20%) of Recombinant CEACAM-1 (ED): Recombinant protein loaded under reducing conditions and stained with Coomassie Blue. The protein behaves as a ~100 kDa polypeptide due to significant glycosylation.

Fig B. SEC of Human Recombinant CEACAM-1 (ED): Human CEACAM-1 protein sample is analyzed using Superose 6 Increase™ 5x150 column in 50 mM sodium phosphate; 0.3 M NaCl pH 7.2 at 100 µl/min and monitoring at 280 nm.

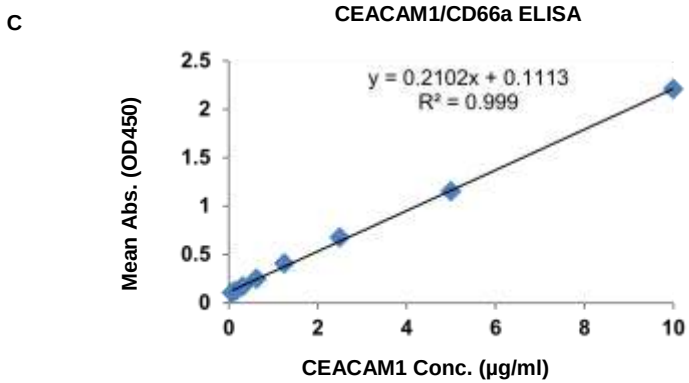


Fig C. Biological activity: Immobilized Human TIM3 at 5 µg/ml (100 µl/well) can bind to biotinylated CEACAM1 (ED) with a linear range of 0.08-10 µg/ml

RELATED PRODUCTS:

- Human CellExp™ CD223, human recombinant **(Cat. No. 7278-10, -50)**
- Human CellExp™ CD71, human recombinant **(Cat. No. 7279-10, -50)**

FOR RESEARCH USE ONLY! Not to be used on humans.