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Product datasheet for AM26012PU-N

CEACAM1 Mouse Monoclonal Antibody [Clone ID: B3]

Product data:

Product Type:	Primary Antibodies
Clone Name:	B3
Applications:	ELISA, FC, IF, IHC, IP, WB
Recommended Dilution:	**ELISA:** Use at 2-5 µg/ml. **Western blot:** Use at 1-5 µg/ml. **Flow Cytometry:** Use at 10 µg/ml. **Immunofluorescence/Immunohistochemistry:** Use at 2-5 µg/ml. **Immunohistochemistry on Paraffin Sections.** **Immunoprecipitation:** Use at 10 µg/IP. **Affinity purification.**
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Recombinant Human soluble CEACAM-1-Fc lacking the N-domain (produced in HEK293 cells)
Specificity:	This Monoclonal CEACAM-1 antibody (B3) interacts solely with Human CEACAM-1 and shows no cross-reactivity with other CEACAMs expressed in Human or other species! **B3 binds to the A1-B-Domain!** **Does not** react with Rat, Mouse, Dog and Cattle.
Formulation:	PBS, pH 7.4 State: Purified State: Lyophilized purified IgG fraction of Cell Culture Supernatant
Reconstitution Method:	Restore in sterile water corresponding to a concentration of 0.1-1.0 mg/ml. Centrifuge vial prior to opening.
Purification:	Protein G Chromatography
Conjugation:	Unconjugated

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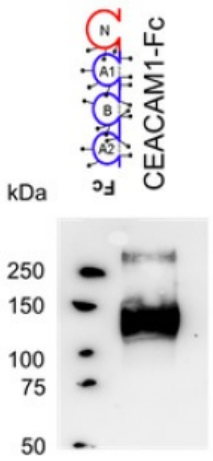
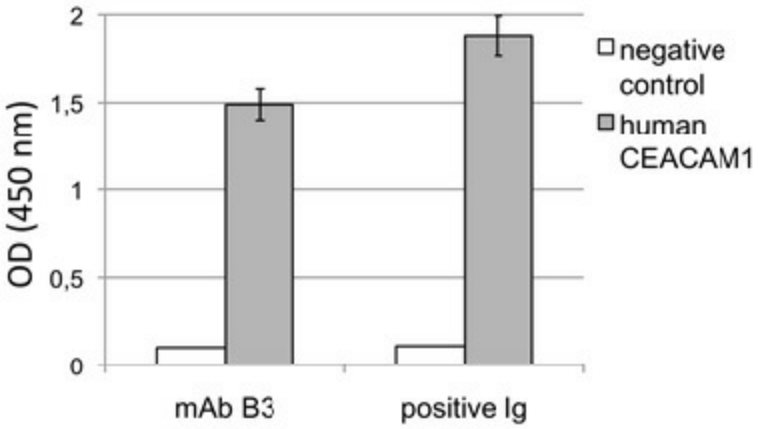
Storage:	Prior to reconstitution store at 2-8°C. Following reconstitution store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	carcinoembryonic antigen related cell adhesion molecule 1
Database Link:	Entrez Gene 634 Human P13688
Background:	Carcinoembryonic antigen (CEA)-related cell adhesion molecule 1 (CEACAM1? also BGP) is a 160 kDa member of the CEACAM branch of the CEA gene family of the immunoglobulin superfamily (1-3). It is one of seven human CEACAM subfamily genes that are essentially divided equally between type I trans-membrane proteins (CEACAM1, 3-4) and GPI-linked molecules (CEACAM5-8). There is no CEACAM2 in human. The gene for human CEACAM1 codes for a 526 amino acid (aa) type I transmembrane protein that contains a 34 aa signal sequence, a 394 aa extracellular domain (ECD), a 24 aa transmembrane segment, and a 74aa cytoplasmic region (4, 5). The ECD contains one N-terminal V-type followed by three C2-type Ig-like domains. It shows considerable glycosylation (1). There are three soluble and seven transmembrane isoforms. The three soluble forms also contain the first two C2-type Ig like domains (aa's 145 317), with differences coming in the third C2-type Ig- like domain (6). The seven transmembrane isoforms are highly divergent. Full-length mouse and rat CEACAM1 are approximately 57% aa identical to human CEACAM1? in the V-type Ig-like domain, they are 58% and 56% aa identical, respectively. The full-length molecule is found on neutrophils, bile duct epithelium, activated NK cells, colonic columnar epithelium and endothelium.
Synonyms:	BGP, BGP1, Biliary glycoprotein 1
Protein Families:	Druggable Genome, Transmembrane

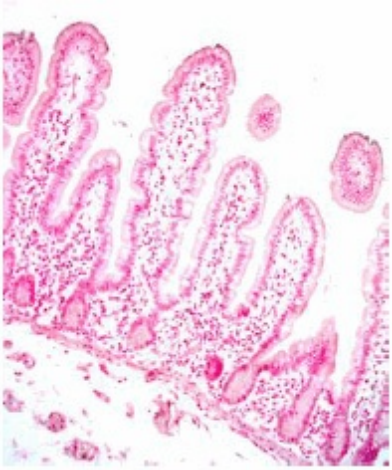
Product images:



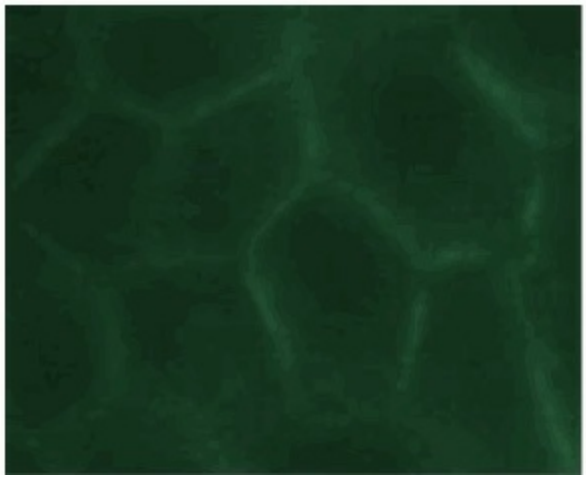
Western blot analysis: Human CEACAM-1 lysate
Detection utilysing 10 ug/ml



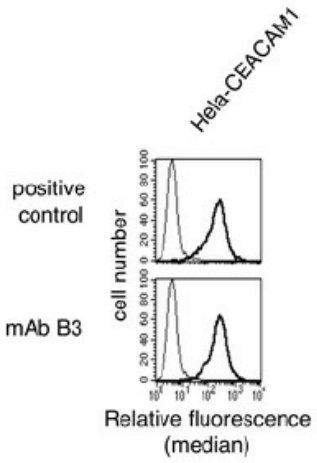
Sandwich ELISA: Solid phase was coated with 3 ug/ml anti CEA binding human CEACAM1-CEACAM8. After washing, blocking and coating human CEACAM1 antigen, detecting antibody mAb B3 (10 ug/ml) followed by HRP-coupled goat anti-mouse Ig was added. TMB was used for visualizing the binding measured by Tecan-ELISA reader at 450 nm.



IHC staining of human jejunum tissue with Monoclonal Antibody B3. CEACAM1 was detected in PFA-fixed paraffin-embedded sections of human jejunum tissue using B3 followed by staining with anti-mouse HRP-DAB and counterstaining with hematoxylin. The labeling showed week staining of CEACAM1 by B3.



Immunofluorescence with HeLa-CEACAM-1 cells. Cells were 4% PFA fixed (10min) and then incubated in 5% BSA/PBS for 1 h to block non-specific prtein-protein interactions. The cells were then incubated with 10ug B3-17 overnight at 4°C. The secondary antibody (green) was Alexa Flour®488 goat-anti-Mouse IgG (H+L).



Flow cytometry: 10 ug/ml of primary mAb B3; 250.000 Hela-human CEACAM1 cells