OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for DM1201

CEACAM1 Mouse Monoclonal Antibody [Clone ID: 8G5]

Product data:

Product Type:	Primary Antibodies
Clone Name:	8G5
Applications:	ELISA, FC, IF, IHC
Recommended Dilution:	**Flow Cytometry:** 1.2 µg/10^6 cells. **ELISA:** 1/200-1/400. **Cell based ELISA** with intakt, transiently transfected cells: 1/200-1/400. **Immunofluorescence.** **Immunohistochemistry on Cryosections:** 10 µg/ml.
Reactivity:	Human, Mammalian
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Genetic immunisation with cDNA encoding the extracellular region of Human CEACAM1-A2. Based on recognition of the complete native protein expressed on transfected mammalian cells.
Specificity:	This antibody recognizes Human CEACAM1 (biliary glycoprotein I, BGP/CD66a). This antibody detects complete native protein expressed on transfected cells.
Formulation:	PBS, pH 7.2 State: Purified State: Liquid purified Ig fraction Preservative: None
Concentration:	lot specific
Purification:	Protein G Chromatography
Conjugation:	Unconjugated
Storage:	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

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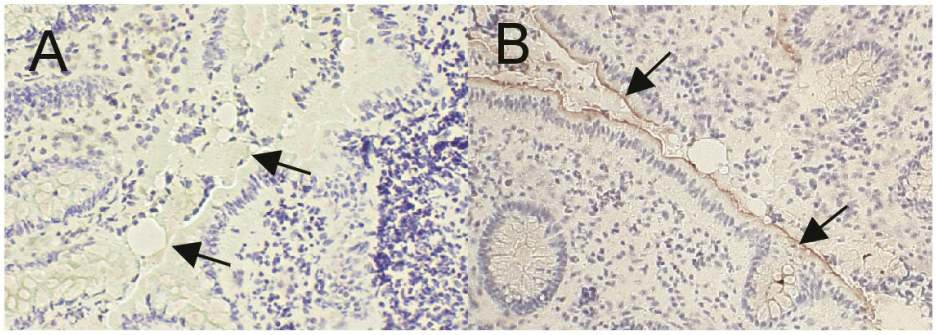
Database Link: Entrez Gene 634 Human
P13688

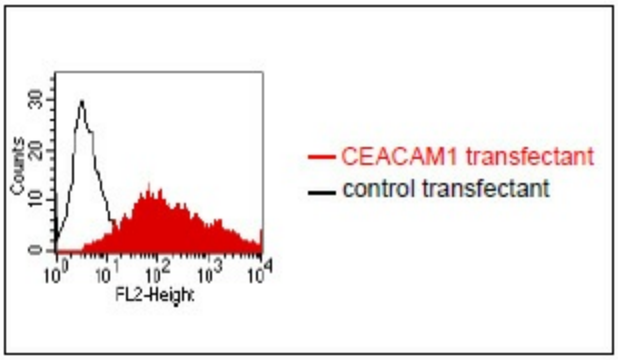
Background: CEACAM1 (BGP/CD66a) is a transmembrane glycoprotein which belongs to the carcinoembryonic antigen (CEA) gene family (1,2). It is expressed on cells of epithelial and myeloid origin and mediates homophilic intercellular interactions that influence cellular growth, immune cell activation, and tissue morphogenesis. CEACAM1 is a putative tumour suppressor based on diminished expression in some aggressive types of cancer cells (3). The anti-tumour effect may be due to inhibition of tumour angiogenesis, possibly by increased secretion of anti-angiogenic molecules from the cells (4). Like all members of the CEACAM family, it consists of a single N domain, with structural homology to the immunoglobulin variable domains, followed by two immunoglobulin constant-like A (A1, A2) and one B domain. While the N, A1 and B domains can also be found in other CEA-family members, the A2 domain of CEACAM1 differs from those found in other CEACAM.

Synonyms: BGP, BGP1, Biliary glycoprotein 1

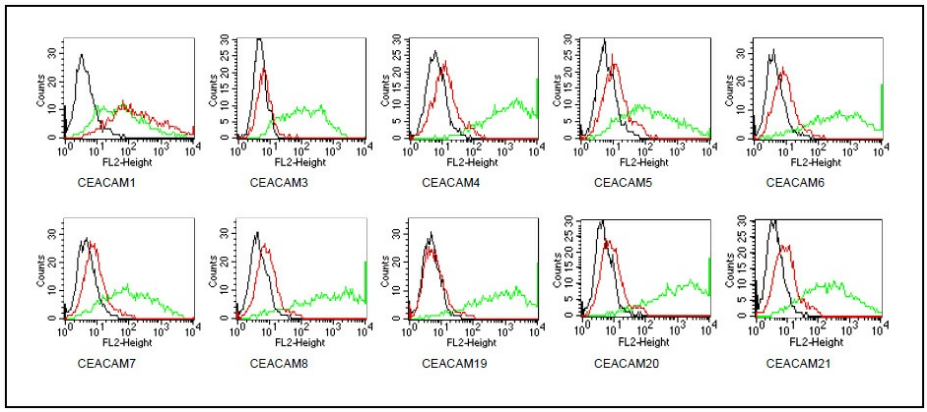
Product images:



Immunohistochemical staining on cryosections of colon tissue using 8G5. PBS containing 2.5% horse serum served as negative control (A). Detection of 8G5 occurred with a bioti-nylated anti-mouse-IgG secondary antibody and a streptavidin-peroxidase conjugate (B). Diaminoben-zidine was used as substrate. Nuclei were stained with hematoxilin.



FACS analysis of BOSC23 cells using 8G5. BOSC23 cells were transiently trans-fected with an expression vector encoding either CEACAM1 (red curve) or an irrelevant protein (control transfectant: black curve). Binding of 8G5 was detected with a PE-conjugated secondary antibody. A positive signal was obtained only with CEACAM1 transfected cells.



Members of the CEA family were expressed on BOSC cells after transient transfection with expression vectors containing either the cDNA of CEACAM1, 5, 6, 7, 8, 19, 20 or 21. Recognition of CEACAM3 and 4 was tested on stably trans-fected HeLa (CEACAM3) and CHO cells (CEACAM4). Expression of the constructs was confirmed with monoclonal antibodies known to recognise the corresponding proteins (CEACAM1, 3, 4: D14HD11; CEACAM5: 26/3/13; CEACAM6: 9A6; CEACAM7: BAC2; CEACAM8: 2H6; CEACAM19-21: anti-myc; green curves). An irrelevant monoclonal antibody served as a nega-tive control (black curves). For specificity testing, protein G-purified 8G5 was tested on all CEACAM transfectants. A posi-tive signal was only obtained with CEACAM1-expressing cells (red curves).