

Datasheet for ABIN114594  
**anti-CEACAM1 antibody**

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## Overview

Quantity:	0.1 mg
Target:	CEACAM1
Reactivity:	Human, Mammalian
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CEACAM1 antibody is un-conjugated
Application:	Flow Cytometry (FACS), Immunofluorescence (IF), Immunohistochemistry (Frozen Sections) (IHC (fro)), Enzyme Immunoassay (EIA)

## Product Details

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.
Clone:	8G5
Isotype:	IgG1
Specificity:	This antibody detects complete native protein expressed on transfected cells.
Purification:	Protein G Chromatography

## Target Details

Target:	CEACAM1
Alternative Name:	CD66a / CEACAM1 ( <a href="#">CEACAM1 Products</a> )

## Target Details

**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, Carcinoembryonic antigen-related cell adhesion molecule 1

**Gene ID:** 634

**NCBI Accession:** [NP\\_001020083](#)

**UniProt:** [P13688](#)

## Application Details

**Application Notes:** Flow cytometry: 1.2 µg/10<sup>6</sup> cells  
Competitive ELISA: 1: 200 - 1: 400. ELISA: 1: 200 - 1: 400.  
Immunofluorescence. Immunohistology: 10 µg/mL (on cryosections).  
Other applications not tested.  
Optimal dilutions are dependent on conditions and should be determined by the user.

**Restrictions:** For Research Use only

## Handling

**Concentration:** 1.0 mg/mL

**Buffer:** PBS, pH 7.2

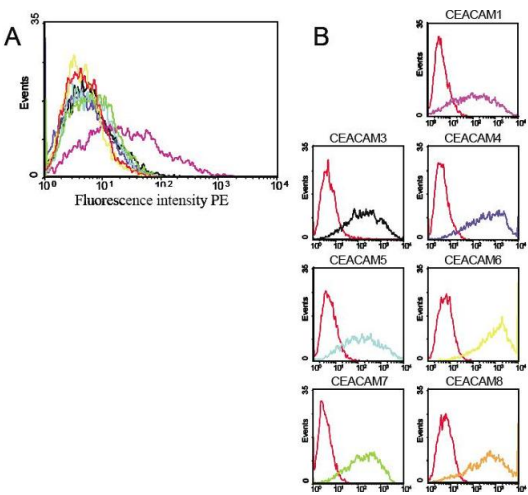
**Handling Advice:** Avoid repeated freezing and thawing.

**Storage:** 4 °C/-20 °C

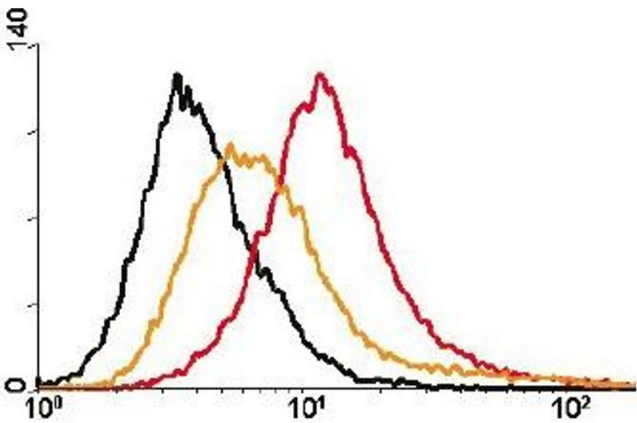
**Storage Comment:** Store the reconstituted antibody at 2-8 °C for one month (add 0.09% Sodium Azide) or at -20 °C for longer.

- Product cited in: Peng, Oberst, Huang, Brohawn, Morehouse, Lekstrom, Baeuerle, Wu, Yao, Coats, DallAcqua, Damschroder, Hammond: "The CEA/CD3-bispecific antibody MEDI-565 (MT111) binds a nonlinear epitope in the full-length but not a short splice variant of CEA." in: **PLoS ONE**, Vol. 7, Issue 5, pp. e36412, (2012) ([PubMed](#)).
- Sémiramoth, Gleizes, Turbica, Sandré, Gorges, Kansau, Servin, Chollet-Martin: "Escherichia coli type 1 pili trigger late IL-8 production by neutrophil-like differentiated PLB-985 cells through a Src family kinase- and MAPK-dependent mechanism." in: **Journal of leukocyte biology**, Vol. 85, Issue 2, pp. 310-21, (2009) ([PubMed](#)).
- Béaslas, Torreilles, Casellas, Simon, Fabre, Lacasa, Delers, Chambaz, Rousset, Carrière: " Transcriptome response of enterocytes to dietary lipids: impact on cell architecture, signaling, and metabolism genes." in: **American journal of physiology. Gastrointestinal and liver physiology**, Vol. 295, Issue 5, pp. G942-52, (2008) ([PubMed](#)).
- Nittka, Böhm, Zentgraf, Neumaier: "The CEACAM1-mediated apoptosis pathway is activated by CEA and triggers dual cleavage of CEACAM1." in: **Oncogene**, Vol. 27, Issue 26, pp. 3721-8, (2008) ([PubMed](#)).
- Thomas, Zhu, Schnaar, Alves, Konstantopoulos: "Carcinoembryonic antigen and CD44 variant isoforms cooperate to mediate colon carcinoma cell adhesion to E- and L-selectin in shear flow." in: **The Journal of biological chemistry**, Vol. 283, Issue 23, pp. 15647-55, (2008) ([PubMed](#)).

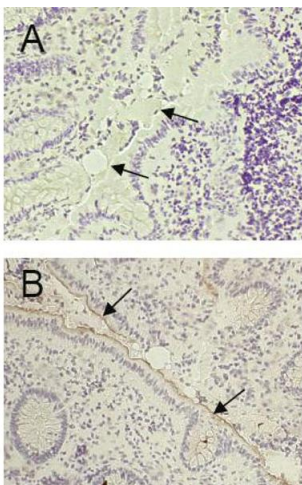
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**Image 1.** Fig. 1: Specificity testing of GM8G5. BOSC cells were transiently transfected with expression vectors containing the cDNA of either CEACAM1, 3, 4, 5, 6, 7 or 8. Expression of the constructs was tested with monoclonal antibodies known to recognise the corresponding proteins (B, coloured curves, D14HD11, BAC2, 80H3), an irrelevant monoclonal antibody served as negative control (red curves). For specificity testing (A), GM8G5 hybridoma supernatant was tested on all CEACAM transfectants. A positive signal was obtained only with CEACAM1 transfected cells (purple curve).



**Image 2.** Fig. 2: GM8G5 on renal cell carcinoma (RCC). Hybridoma supernatant of GM8G5 recognises CEACAM1 expressed on the surface of native RCC (orange curve) and on RCC stimulated with IFN (red curve). PBS served as negative control (black curve).



**Image 3.** Fig. 3: Immunohistological staining of colon tissue with GM8G5. Cryosections of colon tissue were stained with 10 ug/ml GM8G5 diluted in PBS containing 2.5% horse serum (B). PBS 2.5% horse serum served as negative control (A). Arrows indicate representative sections of analysed tissues. Detection of GM8G5 occurred with a biotinylated anti-mouse-IgG secondary antibody and a streptavidin-peroxidase conjugate. Diaminobenzidine was used as substrate. Nuclei were stained with hematoxylin