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 (CEACAM1 Products)

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/10^6 cellsCompetitive ELISA: 1: 200 - 1: 400. ELISA: 1: 200 - 1: 400. Immunoflourescence. 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.

Publications

Product cited in:

Rangel-Moreno, de la Luz Garcia-Hernandez, Ramos-Payan, Biear, Hernady, Sangster, Randall, Johnston, Finkelstein, Williams: "Long-Lasting Impact of Neonatal Exposure to Total Body Gamma Radiation on Secondary Lymphoid Organ Structure and Function." in: **Radiation research**, Vol. 184, Issue 4, pp. 352-66, (2015) (PubMed).

Heishi, Hosaka, Suzuki, Miyashita, Oike, Takahashi, Nakamura, Arioka, Mitsuda, Takakura, Hojo, Matsumoto, Yamauchi, Ohta, Sonoda, Sato: "Endogenous angiogenesis inhibitor vasohibin1 exhibits broad-spectrum antilymphangiogenic activity and suppresses lymph node metastasis. " in: **The American journal of pathology**, Vol. 176, Issue 4, pp. 1950-8, (2010) (PubMed).

Conrad, Niess, Huss, Huber, von Luettichau, Nelson, Ott, Jauch, Bruns: "Multipotent mesenchymal stem cells acquire a lymphendothelial phenotype and enhance lymphatic regeneration in vivo." in: **Circulation**, Vol. 119, Issue 2, pp. 281-9, (2009) (PubMed).

There are more publications referencing this product on: Product page

Images

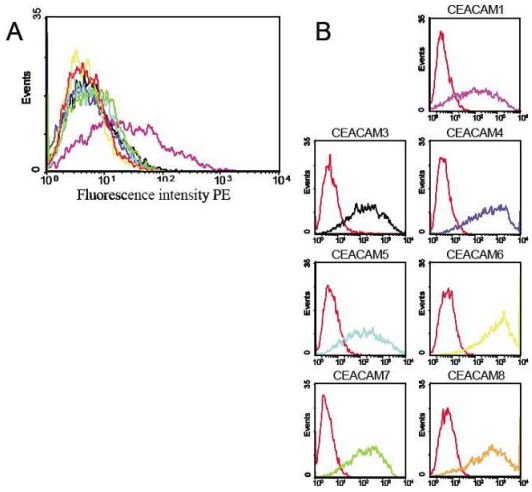

Image 1. Fig. 1: Specificity testing of GM8G5. BOSC cells were transiently transfected with expression vectors containing the cDNA of either CEACAM1, 3, 4, 5, 6, 7 or 8. Expression of the constructs was tested with monoclonal antibodies known to recognise the corresponding proteins (B, coloured curves, 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).

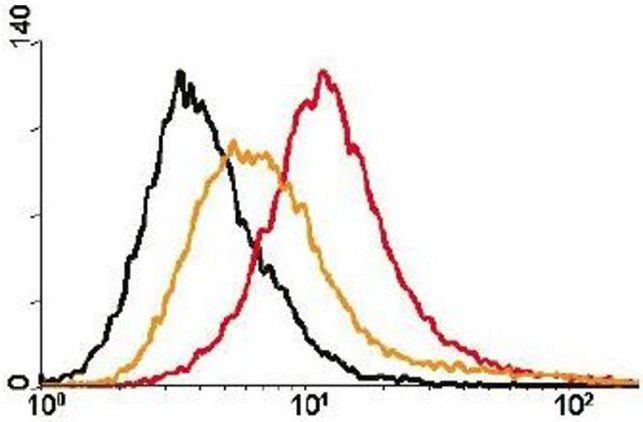

Image 2. Fig. 2: GM8G5 on renal cell carcinoma (RCC). Hybridoma supernatant of GM8G5 recognises CEACAM1 expressed on the surface of native RCC (orange curve) and on RCC stimulated with IFN (red curve). PBS served as negative control (black curve).

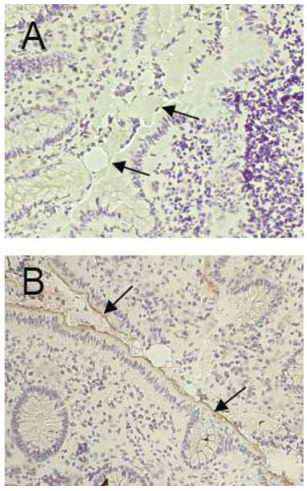

Image 3. Fig. 3: Immunohistological staining of colon tissue with GM8G5. Cryosections of colon tissue were stained with 10 ug/ml GM8G5 diluted in PBS containing 2.5% horse serum (B). PBS 2.5% horse serum served as negative control (A). Arrows indicate representa-tive sections of analysed tissues. Detection 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 hematoxilin

