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GENOVAC

Providing Solutions from Genes to Antibodies

Product Data Sheet

anti-human CEACAM8 monoclonal antibody GM2H6

Product information

Catalog Number:	GM-0512
Clone:	GM2H6
Description:	purified monoclonal mouse antibody
Specificity:	anti-human CEACAM8 (CD66b/NCA-95)
Isotype:	IgG1
Purification:	Protein G
Storage:	short term: 2°C - 8°C; long term: -20°C (avoid repeated freezing and thawing)
Concentration:	1 mg/ml
Buffer :	phosphate buffered saline, pH 7.2
Immunogen:	genetic immunization with cDNA encoding human CEACAM8
Selection:	based on recognition of the complete **native protein** expressed on transfected mammalian cells

Working dilutions

Flow cytometry:	1.2 µg/10^6 cells
CELISA:	1:200 - 1:400

For each application a titration should be performed to determine the optimal concentration.

Specificity testing by flow cytometry

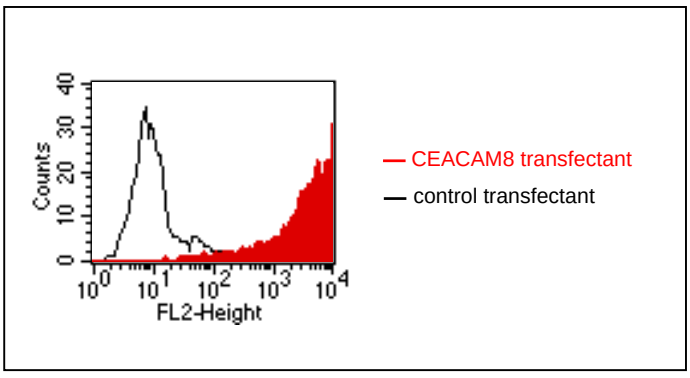

Fig.1: FACS analysis of BOSC23 cells using GM2H6 Cat.# GM-0512. BOSC23 cells were transiently transfected with an expression vector encoding either CEACAM8 (red curve) or an irrelevant protein (control transfectant). Binding of GM-0512 was detected with a PE conjugated secondary antibody. A positive signal was obtained only with CEACAM8 transfected cells.

Antibody cross-reactivity with members of the CEA family

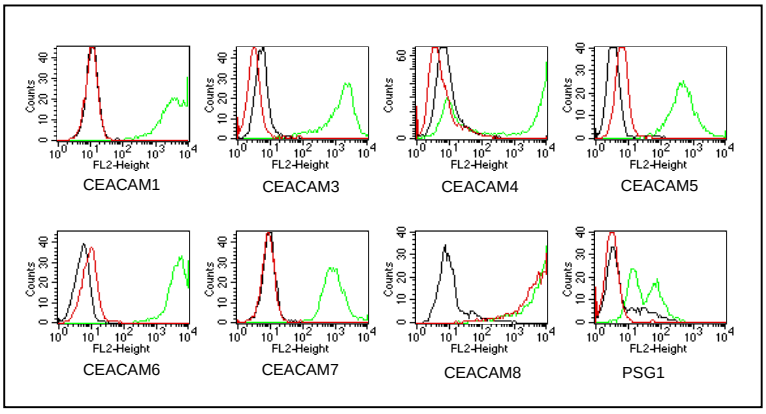

Fig. 2: BOSC23 cells were transiently transfected with expression vectors containing either the cDNA of CEACAM1, CEACAM3-8 or PSG. The latter expressed as a membrane bound fusion protein. Expression of the constructs was tested with monoclonal antibodies known to recognize the corresponding proteins (CEACAM1,3,4,5 and 6: D14HD11; CEACAM7: BAC2; CEACAM8: Tet2; PSG: BAP3; green curves). An irrelevant monoclonal antibody served as a negative control (black curves). For specificity testing, protein G-purified GM-2H6 was tested on all CEACAM transfectants. A positive signal was obtained only with CEACAM8 transfected cells (red curve).

Background

CEA-related cell adhesion molecule 8 (CEACAM8, CD66b) belongs to the carcinoembryonic antigen (CEA) gene family (1,3,4). It encodes a glycosylphosphatidylinositol (GPI)-linked glycoprotein with a M_r of 95,000 which is expressed in cells of the granulocyte-lineage. It is expressed in neutrophils and eosinophils and is characterized as a granulocyte-specific activation antigen. CEACAM8 could serve as a marker for granulocyte activities (2). Like all members of the CEA family, it consists of a single N domain, with structural homology to the immunoglobulin variable domains, followed by two immunoglobulin constant-like A and B domains.

References

1. Zimmermann W (2002). Carcinoembryonic antigen. In *Wiley Encyclopedia of Molecular Medicine* (T. Creighton, ed.), John Wiley & Sons Inc., New York, USA, pp. 459-462.

2. Zhao L, Xu S, Fjaertoft G, Pauksen K, Hakansson L and Venge P (2004). An enzyme-linked immunosorbent assay for human carcinoembryonic antigen-related cell adhesion molecule 8, a biological marker of granulocyte activities in vivo. *J. Immunol. Methods* 293(1-2):207-14

3. Hammarström S (1999). The carcinoembryonic antigen (CEA) family: structures, suggested functions and expression in normal and malignant tissues. *Semin. Cancer Biol*. 9, 67-81.