PRODUCT DATA SHEET
ANTI-HUMAN CEACAM6 MONOCLONAL ANTIBODY

PRODUCT INFORMATION

Catalog Number:	GM-0509	**Clone:**	9A6
Description:	purified monoclonal mouse antibody	**Specificity:**	anti-human CEACAM6 (NCA; CD66c)
Isotype:	IgG1/kappa	**Purification:**	Protein G
Storage:	short term: 2°C – 8°C; long term: –20°C (avoid repeated freezing and thawing)	**Buffer:**	phosphate buffered saline, pH 7.2
Immunogen:	immunization with tumor cell lines expressing CEACAM6	**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	**ELISA:**	1:200 – 1:400
Western blot:	4µg/ml	**Immunohistology:**	1-2 µg/10^6 cells (on cryosections)
For each application a titration should be performed to determine the optimal concentration.			

SPECIFICITY TESTING BY FLOW CYTOMETRY

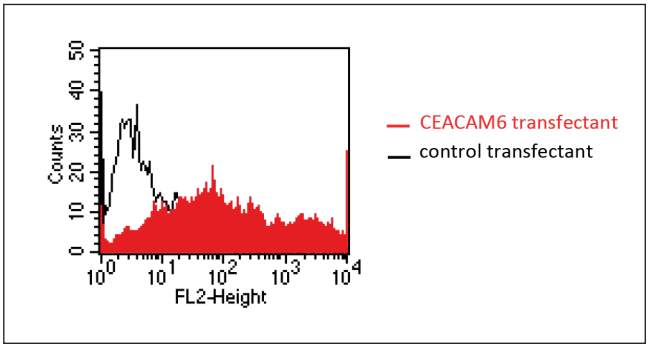

Fig. 1: FACS analysis of BOSC23 cells using 9A6 Cat.# GM-0509. BOSC23 cells were transiently transfected with an expression vector encoding either CEACAM6 (red curve) or an irrelevant protein (control transfectant). Binding of 9A6 was detected with a PE-conjugated secondary antibody. A positive signal was obtained only with CEACAM6 transfected cells.

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ANTIBODY CROSS-REACTIVITY WITH MEMBERS OF THE CEA FAMILY

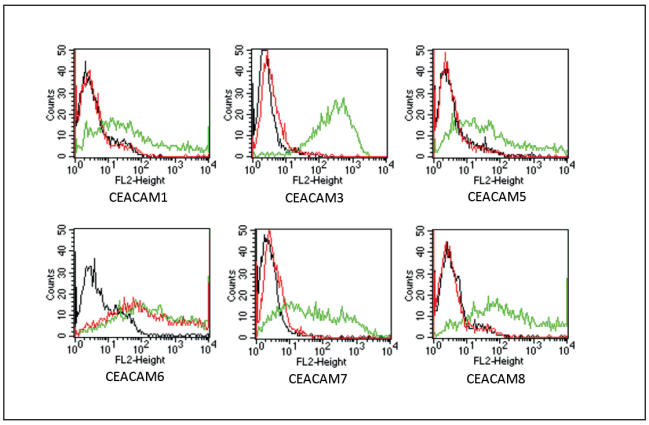

Fig. 2: Members of the CEA family were expressed on BOSC cells after transient transfection with expression vectors containing either the cDNA of CEACAM1, 5, 6, 7 or 8. Recognition of CEACAM3 was tested on stably transfected HeLa cells (CEACAM4). Expression of the con-structs was confirmed with monoclonal antibodies known to recognize the corresponding proteins (CEACAM1, 3, 5 and 6: D14HD11; CEACAM7: CAC2; CEACAM8: 80H3 (green curves). An irrelevant monoclonal antibody served as a negative control (black curves). For speci-ficity testing, protein G-purified 9A6 was tested on all CEACAM transfectants. A positive signal was only obtained with CEACAM6-expressing cells (red curves).

BACKGROUND

CEA-related cell adhesion molecule 6 (CEACAM6, NCA) belongs to the carcinoembryonic antigen (CEA) gene family (1, 2). It encodes a glycosyl phosphatidyl inositol (GPI)-linked glycoprotein with a Mr of 90,000 which is strongly expressed on epithelial cells of the fetal and adult gastrointestinal tract, epithelia of glandular tissues, squamous epithelial cell of the tongue, esophagus and cervix as well as on granulocytes (2, 3). CEACAM6 expression is upregulated in many adenocarcinomas and leukemias. Like all members of the CEA family, it consists of a single N domain, with structural homology to the immunoglobulin variable domains, followed by one immunoglobulin constant-like A and B domain.

REFERENCES

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3. ***Scholzel S, Zimmermann W, Schwarzkopf G, Grunert F, Rogaczewski B and Thompson J (2000).*** Carcinoembryonic antigen family members CEACAM6 and CEACAM7 are differentially expressed in normal tissues and oppositely deregulated in hyperplastic colorectal polyps and early adenomas. Am J Pathol 156, 595-605.
4. ***Grunert F, Stocks SC, Nagel G., Zimmermann W, Thompson JA, Jantscheff P and Kromer B. (1996).*** CD66 family Workshop: Binding of myeloid blind panel antibodies and CD66 Subsection antibodies to HeLa transfectants expressing individual CD66 molecules. In Leukocyte Typing VI: White cell Differentiation Antigens (T. Kishimoto et al., eds.), Garland Publishing Inc., New York and London, pp. 1012-1025.