SANTA CRUZ BIOTECHNOLOGY, INC.

CEACAM1/3/6 (3H2379): sc-70757

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The CD66 (carcinoembryonic antigen, CEA, biliary glycoprotein I, BGP-1, CECAM) immunoglobulin superfamily of genes encode cell adhesion proteins, which are expressed at higher levels in tumorous tissues than in normal tissues. CD66 mRNA is strongly expressed in primary colon tumors and, to a lesser extent, in normal colonic tissue. The human CD66 gene family is a diverse set of glycoproteins of epithelial and hematopoietic lineage that comprises 29 genes, which map to chromosome position 19q13.2. CD66A, CD66B, CD66C, CD66D, CD66E and CD66F are the best characterized CD66 antigens, and CD66A-D expression upregulates on the surface of granulocytes upon stimulation. CD66 isoforms mediate homotypic and heterotypic intercellular adhesion events independently of cell type.

REFERENCES

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3. Barnett, T.R., Kretschmer, A., Austen, D.A., Goebel, S.J., Hart, J.T., Elting, J.J. and Kamarck, M.E. 1989. Carcino-embryonic antigens: alternative splicing accounts for the multiple mRNAs that code for novel members of the carcinoembryonic antigen family. J. Cell Biol. 108: 267-276.
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5. Tynan, K., Olsen, A., Trask, B., de Jong, P., Thompson, J., Zimmermann, W., Carrano, A. and Mohrenweiser, H. 1992. Assembly and analysis of cosmid contigs in the CEA-gene family region of human chromosome 19. Nucleic Acids Res. 20: 1629-1636.
6. Barnett, T.R., Drake, L. and Pickle, W.N. 1993. Human biliary glycoprotein gene: characterization of a family of novel alternatively spliced RNAs and their expressed proteins. Mol. Cell. Biol. 13: 1273-1282.
7. Skubitz, K., Campbell, K., Ahmend, K. and Skubitz, A. 1995. CD66 family members are associated with tyrosine kinase activity in human neutrophils. J. Immunol. 155: 5382-5390.
8. Zimmer, R. and Thomas, P. 2001. Mutations in the carcinoembryonic antigen gene in colorectal cancer patients: implications on liver metastasis. Cancer Res. 61: 2822-2826.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: CEACAM1/CEACAM3/CEACAM6 (human) mapping to 19q13.2.

SOURCE

CEACAM1/3/6 (3H2379) is a rat monoclonal antibody raised against lymphocytes of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CEACAM1/3/6 (3H2379) is available conjugated to either phycoerythrin (sc-70757 PE) or fluorescein (sc-70757 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

APPLICATIONS

CEACAM1/3/6 (3H2379) is recommended for detection of CEACAM3, and transfectants containing CEACAM1, CEACAM3 and CEACAM6 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

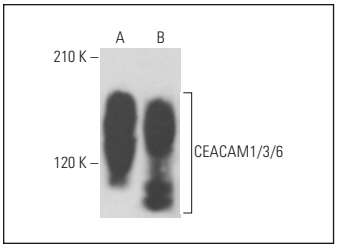
Molecular Weight of CEACAM1: 160 kDa.

Molecular Weight of CEACAM3: 90 kDa.

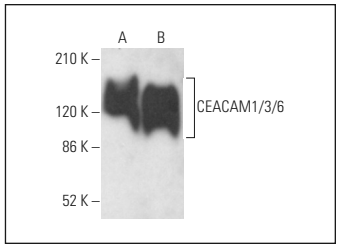
Molecular Weight of CEACAM6: 30 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, COLO 205 whole cell lysate: sc-364177 or BXPC-3 whole cell lysate.

DATA



CEACAM1/3/6 (3H2379): sc-70757. Western blot analysis of CEACAM1/3/6 expression in Hep G2 (**A**) and COLO 205 (**B**) whole cell lysates.



CEACAM1/3/6 (3H2379): sc-70757. Western blot analysis of CEACAM1/3/6 expression in COLO 205 (**A**) and BXPC-3 (**B**) whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.