

CEACAM6 (9A6): sc-59899

BACKGROUND

The CD66 (also designated carcinoembryonic antigen, CEA, biliary glycoprotein I, BGP-1, CEACAM) 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 19q13.1-q13.2. 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. Certain CD66 isoforms mediate homotypic and heterotypic intercellular adhesion events independently of cell type.

CHROMOSOMAL LOCATION

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

SOURCE

CEACAM6 (9A6) is a mouse monoclonal antibody raised against CEACAM6 expressing tumor cell lines of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CEACAM6 (9A6) is available conjugated to agarose (sc-59899 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-59899 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-59899 PE), fluorescein (sc-59899 FITC), Alexa Fluor[®] 488 (sc-59899 AF488), Alexa Fluor[®] 546 (sc-59899 AF546), Alexa Fluor[®] 594 (sc-59899 AF594) or Alexa Fluor[®] 647 (sc-59899 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-59899 AF680) or Alexa Fluor[®] 790 (sc-59899 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CEACAM6 (9A6) is recommended for detection of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for CEACAM6 siRNA (h): sc-72071, CEACAM6 shRNA Plasmid (h): sc-72071-SH and CEACAM6 shRNA (h) Lentiviral Particles: sc-72071-V.

Molecular Weight of CEACAM6: 90 kDa.

Positive Controls: human PBL whole cell lysate or LS1034 whole cell lysate.

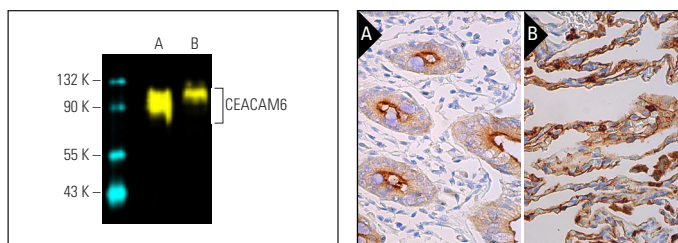
STORAGE

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

RESEARCH USE

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

DATA



CEACAM6 (9A6) Alexa Fluor[®] 488: sc-59899 AF488. Direct fluorescent western blot analysis of CEACAM6 expression in LS1034 (A) and human PBL (B) whole cell lysates. Blocked with UltraCruz[®] Blocking Reagent: sc-516214. Cruz Marker[™] Molecular Weight Standards detected with Cruz Marker[™] MW Tag-Alexa Fluor[®] 647: sc-516791.

CEACAM6 (9A6): sc-59899. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing apical membrane staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing membrane staining of pneumocytes and cytoplasmic staining of macrophages (B).

SELECT PRODUCT CITATIONS

- Kolla, V., et al. 2009. Carcinoembryonic cell adhesion molecule 6 in human lung: regulated expression of a multifunctional type II cell protein. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 296: L1019-L1030.
- Niu, G., et al. 2012. Molecular targeting of CEACAM6 using antibody probes of different sizes. *J. Control. Release* 161: 18-24.
- Han, H.S., et al. 2014. MicroRNA-29a suppresses the growth, migration, and invasion of lung adenocarcinoma cells by targeting carcinoembryonic antigen-related cell adhesion molecule 6. *FEBS Lett.* 588: 3744-3750.
- Hong, K.P., et al. 2015. Therapeutic effect of anti CEACAM6 monoclonal antibody against lung adenocarcinoma by enhancing anoikis sensitivity. *Biomaterials* 67: 32-41.
- Son, S.M., et al. 2019. Therapeutic effect of pHLP-mediated CEACAM6 gene silencing in lung adenocarcinoma. *Sci. Rep.* 9: 11607.
- Sheikh, A., et al. 2020. CEACAMs serve as toxin-stimulated receptors for enterotoxigenic *Escherichia coli*. *Proc. Natl. Acad. Sci. USA* 117: 29055-29062.
- Rahman, S.K., et al. 2021. The immunomodulatory CEA cell adhesion molecule 6 (CEACAM6/CD66c) is a protein receptor for the influenza A virus. *Viruses* 13: 726.
- Kurlinkus, B., et al. 2021. CEACAM6's role as a chemoresistance and prognostic biomarker for pancreatic cancer: a comparison of CEACAM6's diagnostic and prognostic capabilities with those of CA19-9 and CEA. *Life* 11: 542.

PROTOCOLS

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