

# CEACAM5 (26/5/1): sc-59873

## BACKGROUND

The CD66 (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. 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 family members mediate homotypic and heterotypic intercellular adhesion events. CD66E, also known as CEA, is a well known tumor marker and a heavily glycosylated GPI-linked cell surface molecule.

## REFERENCES

1. Zimmermann, W., et al. 1987. Isolation and characterization of cDNA clones encoding the human carcinoembryonic antigen reveal a highly conserved repeating structure. *Proc. Natl. Acad. Sci. USA* 84: 2960-2964.
2. Barnett, T., et al. 1988. Carcinoembryonic antigen family: characterization of cDNAs coding for NCA and CEA and suggestion of nonrandom sequence variation in their conserved loop-domains. *Genomics* 3: 59-66.
3. Barnett, T.R., et al. 1989. Carcinoembryonic antigens: alternative splicing accounts for the multiple mRNAs that code for novel members of the carcinoembryonic antigen family. *J. Cell Biol.* 108: 267-276.
4. Schrewe, H., et al. 1990. Cloning of the complete gene for carcinoembryonic antigen: analysis of its promoter indicates a region conveying cell type-specific expression. *Mol. Cell. Biol.* 10: 2738-2748.
5. Tynan, K., et al. 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., et al. 1993. Human biliary glycoprotein gene: characterization of a family of novel alternatively spliced RNAs and their expressed proteins. *Mol. Cell. Biol.* 13: 1273-1282.

## CHROMOSOMAL LOCATION

Genetic locus: CEACAM5 (human) mapping to 19q13.2.

## SOURCE

CEACAM5 (26/5/1) is a mouse monoclonal antibody raised against CEACAM5 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CEACAM5 (26/5/1) is available conjugated to either phycoerythrin (sc-59873 PE) or fluorescein (sc-59873 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

## RESEARCH USE

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

## APPLICATIONS

CEACAM5 (26/5/1) is recommended for detection of CEACAM5 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<sup>6</sup> cells); non cross-reactive with CEACAM 1, 3, 4, 6, 7, and 8 or CD66f.

Suitable for use as control antibody for CEACAM5 siRNA (h): sc-72070, CEACAM5 shRNA Plasmid (h): sc-72070-SH and CEACAM5 shRNA (h) Lentiviral Particles: sc-72070-V.

Molecular Weight of CEACAM5: 180-200 kDa.

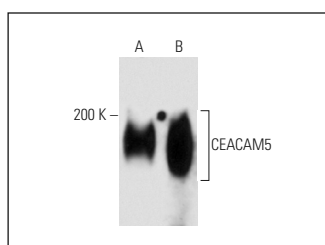
Positive Controls: T84 whole cell lysate: sc-364797, MCF7 whole cell lysate: sc-2206 or COLO 205 whole cell lysate: sc-364177.

## RECOMMENDED SUPPORT REAGENTS

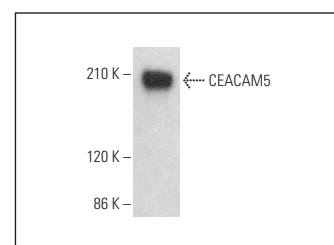
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



CEACAM5 (26/5/1): sc-59873. Western blot analysis of CEACAM5 expression in LS1034 whole cell lysate under reducing (A) and non-reducing (B) conditions.



CEACAM5 (26/5/1): sc-59873. Western blot analysis of CEACAM5 expression in COLO 205 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Bae, M.Y., et al. 2009. Protective anti-tumour immune responses by murine dendritic cells pulsed with recombinant Tat-carcinoembryonic antigen derived from *Escherichia coli*. *Clin. Exp. Immunol.* 157: 128-138.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.