

# CEACAM1 (H-136): sc-25627

## BACKGROUND

Carcinoembryonic antigen (CEA) is one of the most commonly used tumor markers in serum immunoassay determinations of carcinoma. Members of the CEACAM (carcinoembryonic antigen-related cell adhesion molecule) family contain a single N domain, with structural homology to the immunoglobulin variable domains, followed by a variable number of immunoglobulin constant-like A and/or B domains. CEACAM1 (carcinoembryonic antigen-related cell adhesion molecule 1), also known as BGP or BGP1, is a 526 amino acid protein that exists as 7 alternatively spliced isoforms, some of which localize to the cell membranes, while others are secreted. One of several members of the CEACAM family, CEACAM1 contains one Ig-like V-type domain and three Ig-like C2-type domains and is thought to play a role in a variety of cellular activities, including angiogenesis, apoptosis, arrangement of tissue three-dimensional structure and modulation of innate and adaptive immune responses. Additionally, CEACAM1 is underexpressed in colorectal cancers, suggesting a role in tumor suppression.

## REFERENCES

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2. Skubitz, K.M. and Skubitz, A.P. 2008. Interdependency of CEACAM-1, -3, -6, and -8 induced human neutrophil adhesion to endothelial cells. *J. Transl. Med.* 6: 78.
3. Lee, H.S., Ostrowski, M.A. and Gray-Owen, S.D. 2008. CEACAM1 dynamics during neisseria gonorrhoeae suppression of CD4<sup>+</sup> T lymphocyte activation. *J. Immunol.* 180: 6827-6835.
4. Gaur, S., Shively, J.E., Yen, Y. and Gaur, R.K. 2008. Altered splicing of CEACAM1 in breast cancer: identification of regulatory sequences that control splicing of CEACAM1 into long or short cytoplasmic domain isoforms. *Mol. Cancer.* 7: 46.
5. Slevogt, H., Zabel, S., Opitz, B., Hocke, A., Eitel, J., N'guessan, P.D., Lucka, L., Riesbeck, K., Zimmermann, W., Zweigner, J., Temmesfeld-Wollbrueck, B., Suttrop, N. and Singer, B.B. 2008. CEACAM1 inhibits Toll-like receptor 2-triggered antibacterial responses of human pulmonary epithelial cells. *Nat. Immunol.* 9: 1270-1278.

## CHROMOSOMAL LOCATION

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

## SOURCE

CEACAM1 (H-136) is a rabbit polyclonal antibody raised against amino acids 391-526 mapping at the C-terminus of CEACAM1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

CEACAM1 (H-136) is recommended for detection of CEACAM1 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CEACAM1 siRNA (h): sc-29845, CEACAM1 shRNA Plasmid (h): sc-29845-SH and CEACAM1 shRNA (h) Lentiviral Particles: sc-29845-V.

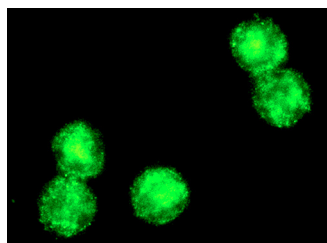
Molecular Weight of CEACAM1: 90-180 kDa.

Positive Controls: SW480 cell lysate: sc-2219.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



CEACAM1 (H-136): sc-25627. Immunofluorescence staining of methanol-fixed SW480 cells showing membrane localization.

## 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.

**MONOS**  
Satisfaction  
Guaranteed

Try **CEACAM1 (E-1): sc-166453** or **CEACAM1 (E-10): sc-166404**, our highly recommended monoclonal alternatives to CEACAM1 (H-136).