

# CEACAM1/2 (M-20): sc-8225

## 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, tumor suppression and modulation of innate and adaptive immune responses. CEACAM2 (carcinoembryonic antigen-related cell adhesion molecule 2) is a 520 amino acid single-pass type I murine protein that, like CEACAM1, is thought to play a role in immune responses and carcinogenesis.

## REFERENCES

1. Han, E., Phan, D., Lo, P., Poy, M.N., Behringer, R., Najjar, S.M. and Lin, S.H. 2001. Differences in tissue-specific and embryonic expression of mouse Ceacam1 and Ceacam2 genes. *Biochem. J.* 355: 417-423.
2. Muenzner, P., Bachmann, V., Kuespert, K. and Hauck, C.R. 2008. The CEACAM1 transmembrane domain, but not the cytoplasmic domain, directs internalization of human pathogens via membrane microdomains. *Cell. Microbiol.* 10: 1074-1092.
3. 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.
4. 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.

## CHROMOSOMAL LOCATION

Genetic locus: Ceacam1 (mouse) mapping to 7 A3, Ceacam2 (mouse) mapping to 7 A3.

## SOURCE

CEACAM1/2 (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CEACAM1 of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-8225 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

CEACAM1/2 (M-20) is recommended for detection of CEACAM1 and CEACAM2 of mouse and, to a lesser extent, rat 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); may cross-react with PECAM-1.

Suitable for use as control antibody for CEACAM1/2 siRNA (m): sc-29846, CEACAM1/2 shRNA Plasmid (m): sc-29846-SH and CEACAM1/2 shRNA (m) Lentiviral Particles: sc-29846-V.

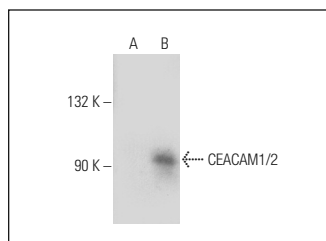
Molecular Weight of CEACAM1/2: 90-180 kDa.

Positive Controls: CEACAM1 (m): 293T Lysate: sc-126520.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



CEACAM1/2 (M-20): sc-8225. Western blot analysis of CEACAM1/2 expression in non-transfected: sc-117752 (A) and mouse CEACAM1/2 transfected: sc-126520 (B) 293T whole cell lysates.

## STORAGE

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

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Try **CEACAM1/2 (E-12): sc-365126**, our highly recommended monoclonal alternative to CEACAM1/2 (M-20).