

CEACAM21 (E-12): sc-131127

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. CEACAM21 (carcinoembryonic antigen-related cell adhesion molecule 21) is a 293 amino acid single-pass type I membrane protein that belongs to the CEACAM family and contains one Ig-like C2-type domain. CEACAM21 exists as three alternatively spliced isoforms that are encoded by a gene which maps to human chromosome 19.

REFERENCES

1. Thompson, J. and Zimmermann, W. 1988. The carcinoembryonic antigen gene family: structure, expression and evolution. *Tumour Biol.* 9: 63-83.
2. Thompson, J.A., Grunert, F. and Zimmermann, W. 1991. Carcinoembryonic antigen gene family: molecular biology and clinical perspectives. *J. Clin. Lab. Anal.* 5: 344-366.
3. Rudert, F., Saunders, A.M., Rebstock, S., Thompson, J.A. and Zimmermann, W. 1992. Characterization of murine carcinoembryonic antigen gene family members. *Mamm. Genome.* 3: 262-273.
4. Skubitz, K.M., Campbell, K.D. and Skubitz, A.P. 2001. Synthetic peptides from the N-domains of CEACAMs activate neutrophils. *J. Pept. Res.* 58: 515-526.
5. Thorp, E.B. and Gallagher, T.M. 2004. Requirements for CEACAMs and cholesterol during murine coronavirus cell entry. *J. Virol.* 78: 2682-2692.
6. Kuespert, K., Pils, S. and Hauck, C.R. 2006. CEACAMs: their role in physiology and pathophysiology. *Curr. Opin. Cell Biol.* 18: 565-571.
7. Callaghan, M.J., Rockett, K., Banner, C., Haralambous, E., Betts, H., Faust, S., Maiden, M.C., Kroll, J.S., Levin, M., Kwiatkowski, D.P. and Pollard, A.J. 2008. Haplotypic diversity in human CEACAM genes: effects on susceptibility to meningococcal disease. *Genes Immun.* 9: 30-37.

CHROMOSOMAL LOCATION

Genetic locus: CEACAM21 (human) mapping to 19q13.2.

SOURCE

CEACAM21 (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of CEACAM21 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.

Blocking peptide available for competition studies, sc-131127 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CEACAM21 (E-12) is recommended for detection of All CEACAM21 1, 2 and 3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other CEACAM family members.

Suitable for use as control antibody for CEACAM21 siRNA (h): sc-97917, CEACAM21 shRNA Plasmid (h): sc-97917-SH and CEACAM21 shRNA (h) Lentiviral Particles: sc-97917-V.

Molecular Weight of CEACAM21: 32 kDa.

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) 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.

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.

PROTOCOLS

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



Try **pan CEA (H-8): sc-48364**, our highly recommended monoclonal alternative to CEACAM21 (E-12).