

CEACAM20 (HT-12D8): sc-101374

BACKGROUND

Carcinoembryonic antigen (CEA) is one of the most commonly used tumor markers in serum immunoassay determinations of carcinoma. Members of the CEA 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. CEACAM20 (carcinoembryonic antigen-related cell adhesion molecule 20) is a 585 amino acid single-pass type I membrane protein that contains four Ig-like C2-type domains and belongs to the CEA family of immunoglobulin-like proteins. The gene encoding CEACAM20 maps to human chromosome 19, which is the genetic home for a number of immunoglobulin superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the PSG family and Fc receptors (FcRs).

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: CEACAM20 (human) mapping to 19q13.31.

SOURCE

CEACAM20 (HT-12D8) is a mouse monoclonal antibody genetically immunized with cDNA encoding CEACAM20 of human origin.

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 for detailed protocols and support products.

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.

CEACAM20 (HT-12D8) is available conjugated to agarose (sc-101374 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-101374 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-101374 PE), fluorescein (sc-101374 FITC), Alexa Fluor® 488 (sc-101374 AF488), Alexa Fluor® 546 (sc-101374 AF546), Alexa Fluor® 594 (sc-101374 AF594) or Alexa Fluor® 647 (sc-101374 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-101374 AF680) or Alexa Fluor® 790 (sc-101374 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CEACAM20 (HT-12D8) is recommended for detection of CEACAM20 of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CEACAM20 siRNA (h): sc-97482, CEACAM20 shRNA Plasmid (h): sc-97482-SH and CEACAM20 shRNA (h) Lentiviral Particles: sc-97482-V.

Molecular Weight of CEACAM20: 65 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) 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.

RESEARCH USE

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