SANTA CRUZ BIOTECHNOLOGY, INC.

CEACAM4 (T-16): sc-246259

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. CEACAM4 (carcinoembryonic antigen-related cell adhesion molecule 4), also known as carcinoembryonic antigen CGM7 or non-specific cross-reacting antigen W236, is a 244 amino acid single-pass type I membrane protein that belongs to the CEA family and immunoglobulin superfamily. Expressed in granulocytes, CEACAM4 contains one Ig-like V-type (immunoglobulin-like) domain and is encoded by a gene that maps to human chromosome 19.

REFERENCES

1. Terry, W.D., et al. 1974. Characterization of human carcinoembryonic antigens. Johns Hopkins Med. J. Suppl. 3: 241-247.
2. Rogers, G.T. 1983. Carcinoembryonic antigens and related glycoproteins. Molecular aspects and specificity. Biochim. Biophys. Acta 695: 227-249.
3. Hinoda, Y. and Imai, K. 1990. Carcinoembryonic antigen gene family and its clinical application. Gan To Kagaku Ryoho. 17: 1274-1280.
4. Kuroki, M., et al. 1991. Molecular cloning of nonspecific cross-reacting antigens in human granulocytes. J. Biol. Chem. 266: 11810-11817.
5. Brandriff, B.F., et al. 1992. Order and genomic distances among members of the carcinoembryonic antigen (CEA) gene family determined by fluorescence *in situ* hybridization. Genomics 12: 773-779.
6. Teglund, S., et al. 1994. The pregnancy-specific glycoprotein (PSG) gene cluster on human chromosome 19: fine structure of the 11 PSG genes and identification of 6 new genes forming a third subgroup within the carcinoembryonic antigen (CEA) family. Genomics 23: 669-684.
7. Kataoka, K., et al. 2000. A carcinoembryonic antigen family cDNA from mouse placenta encoding a protein with a rare domain composition. Placenta 21: 610-614.

CHROMOSOMAL LOCATION

Genetic locus: CEACAM4 (human) mapping to 19q13.2.

SOURCE

CEACAM4 (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of CEACAM4 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-246259 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CEACAM4 (T-16) is recommended for detection of CEACAM4 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 CEACAM4 siRNA (h): sc-97236, CEACAM4 shRNA Plasmid (h): sc-97236-SH and CEACAM4 shRNA (h) Lentiviral Particles: sc-97236-V.

Molecular Weight of CEACAM4: 26 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.