

CEACAM1/2 (E-12): sc-365126

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 seven 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.

CHROMOSOMAL LOCATION

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

SOURCE

CEACAM1/2 (E-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 489-518 at the C-terminus of CEACAM1 of mouse origin.

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.

CEACAM1/2 (E-12) is available conjugated to agarose (sc-365126 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365126 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365126 PE), fluorescein (sc-365126 FITC), Alexa Fluor[®] 488 (sc-365126 AF488), Alexa Fluor[®] 546 (sc-365126 AF546), Alexa Fluor[®] 594 (sc-365126 AF594) or Alexa Fluor[®] 647 (sc-365126 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-365126 AF680) or Alexa Fluor[®] 790 (sc-365126 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365126 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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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.

APPLICATIONS

CEACAM1/2 (E-12) is recommended for detection of CEACAM1 and CEACAM2 of mouse origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 CEACAM1/2 siRNA (m): sc-29846, CEACAM1/2 shRNA Plasmid (m): sc-29846-SH and CEACAM1/2 shRNA (m) Lentiviral Particles: sc-29846-V.

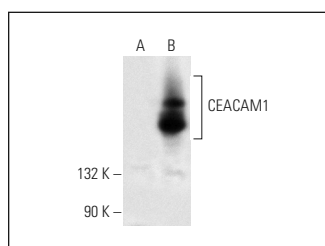
Molecular Weight of CEACAM1/2: 90-180 kDa.

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

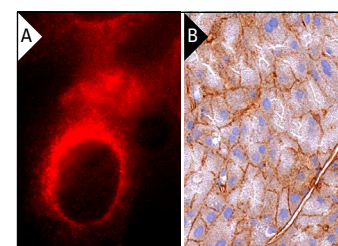
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



CEACAM1/2 (E-12): sc-365126. Western blot analysis of CEACAM1 expression in non-transfected: sc-117752 (A) and mouse CEACAM1 transfected: sc-126520 (B) 293T whole cell lysates.



CEACAM1/2 (E-12): sc-365126. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing intracellular localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse pancreas tissue showing membrane staining of exocrine glandular cells (B).

SELECT PRODUCT CITATIONS

1. Rayes, R.F., et al. 2020. Neutrophil extracellular trap-associated CEACAM1 as a putative therapeutic target to prevent metastatic progression of colon carcinoma. *J. Immunol.* 204: 2285-2294.

RESEARCH USE

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