CEACAM1 (E-1): sc-166453

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 BG1, 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 and modulation of innate and adaptive immune responses. Additionally, CEACAM1 is underexpressed in colorectal cancers, suggesting a role in tumor suppression.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: CEACAM1 (human) mapping to 19q13.2.

SOURCE
CEACAM1 (E-1) is a mouse monoclonal antibody raised against amino acids 391-526 mapping at the C-terminus of CEACAM1 of human origin.

PRODUCT
Each vial contains 200 µg IgG2b κ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CEACAM1 (E-1) is available conjugated to agarose (sc-166453 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166453 HRP), 200 µg/ml, for WB, IHCIP and ELISA; to either phycoerythrin (sc-166453 PE), fluorescein (sc-166453 FITC), Alexa Fluor® 488 (sc-166453 AF488), Alexa Fluor® 546 (sc-166453 AF546), Alexa Fluor® 594 (sc-166453 AF594) or Alexa Fluor® 647 (sc-166453 AF647), 200 µg/ml, for WB (RGB), IF, IHCIP and FCM; and to either Alexa Fluor® 680 (sc-166453 AF680) or Alexa Fluor® 790 (sc-166453 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS
CEACAM1 (E-1) is recommended for detection of CEACAM1 of human 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).

RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ KP-HRP: sc-516102 or m-IgG 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-IgG κ BP-FITC: sc-516140 or m-IgG 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-IgG BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistolmount: sc-45086, or Organo/Limonene Mount: sc-45087.

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.