SANTA CRUZ BIOTECHNOLOGY, INC.

BCAM (D-6): sc-365191

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cell adhesion molecules (CAMs) influence cell growth, differentiation, embryogenesis, immune response and cancer metastasis by networking information from the extracellular matrix to the cell. Regulation of neuronal synaptic adhesion by CAMs has proven important for learning and memory. Proper embryonic morphogenic development is also heavily dependent on the regulation of cell adhesion molecules. Mutation of CAM genes has been linked to several forms of cancer, effecting tumor growth and metastasis. Lutheran blood group glycoprotein, also designated BCAM cell surface glycoprotein or auberger B antigen, plays a role in intracellular signaling. It is a widely expressed protein but the highest level of expression is in pancreas tissue.

CHROMOSOMAL LOCATION

Genetic locus: BCAM (human) mapping to 19q13.32.

SOURCE

BCAM (D-6) is a mouse monoclonal antibody raised against amino acids 258-301 mapping within an internal region of BCAM of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BCAM (D-6) is available conjugated to agarose (sc-365191 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-365191 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365191 PE), fluorescein (sc-365191 FITC), Alexa Fluor® 488 (sc-365191 AF488), Alexa Fluor® 546 (sc-365191 AF546), Alexa Fluor® 594 (sc-365191 AF594) or Alexa Fluor® 647 (sc-365191 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365191 AF680) or Alexa Fluor® 790 (sc-365191 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

BCAM (D-6) is recommended for detection of BCAM 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for BCAM siRNA (h): sc-60263, BCAM shRNA Plasmid (h): sc-60263-SH and BCAM shRNA (h) Lentiviral Particles: sc-60263-V.

Molecular Weight of major BCAM isoform: 85 kDa.

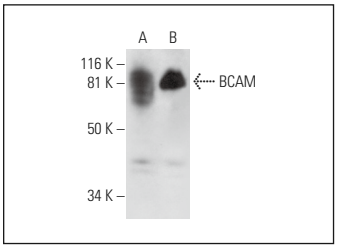
Molecular Weight of minor BCAM isoform: 78 kDa.

Positive Controls: BCAM (h): 293T Lysate: sc-116095, A-431 whole cell lysate: sc-2201 or MIA PaCa-2 cell lysate: sc-2285.

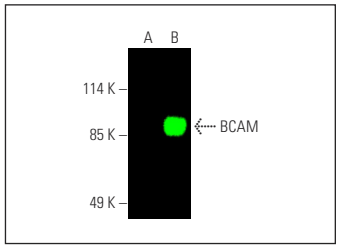
RECOMMENDED SUPPORT REAGENTS

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.

DATA



BCAM (D-6): sc-365191. Western blot analysis of BCAM expression in A-431 (**A**) and MIA PaCa-2 (**B**) whole cell lysates.



BCAM (D-6): sc-365191. Near-Infrared western blot analysis of BCAM expression in non-transfected: sc-117752 (**A**) and human BCAM transfected: sc-116095 (**B**) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

SELECT PRODUCT CITATIONS

1. Mun, S., et al. 2022. Transcriptome profile of membrane and extracellular matrix components in ligament-fibroblastic progenitors and cementoblasts differentiated from human periodontal ligament cells. Genes 13: 659.
2. Zhao, J., et al. 2022. Integrated multi-omics analyses reveal that BCAM is associated with epigenetic modification and tumor microenvironment subtypes of clear cell renal cell carcinoma. Clin. Epigenetics 14: 99.
3. Cang, Z., et al. 2023. Screening cell-cell communication in spatial transcriptomics via collective optimal transport. Nat. Methods 20: 218-228.

RESEARCH USE

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

PROTOCOLS

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