

BCAM (B12): sc-73731

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 auburger B antigen, plays a role in intracellular signaling. It is a widely expressed protein but the highest level of expression is in pancreas tissue.

REFERENCES

1. Campbell, I.G., et al. 1994. Molecular cloning of the BCAM cell surface glycoprotein of epithelial cancers: a novel member of the immunoglobulin superfamily. *Cancer Res.* 54: 5761-5765.
2. Parsons, S.F., et al. 1995. The Lutheran blood group glycoprotein, another member of the immunoglobulin superfamily, is widely expressed in human tissues and is developmentally regulated in human liver. *Proc. Natl. Acad. Sci. USA* 92: 5496-5500.
3. Hines, P.C., et al. 2003. Novel epinephrine and cyclic AMP-mediated activation of BCAM/Lu-dependent sickle (SS) RBC adhesion. *Blood* 101: 3281-3287.
4. Zhang, H., et al. 2003. Identification and quantification of N-linked glycoproteins using hydrazide chemistry, stable isotope labeling and mass spectrometry. *Nat. Biotechnol.* 21: 660-666.
5. Murphy, M.M., et al. 2005. Role of Rap 1 in promoting sickle red blood cell adhesion to laminin via BCAM/Lu. *Blood* 105: 3322-3329.
6. SWISS-PROT/TrEMBL (P50895). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

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

SOURCE

BCAM (B12) is a mouse monoclonal antibody raised against the extracellular domain of BCAM of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} in 1.0 ml PBS with < 0.1% sodium azide and protein stabilizer.

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.

APPLICATIONS

BCAM (B12) is recommended for detection of BCAM of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

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.

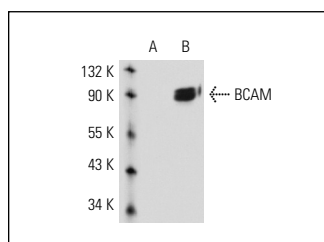
Molecular Weight of BCAM major/minor isoforms: 85/78 kDa.

Positive Controls: BCAM (h): 293T lysate: sc-116095 or MIA PaCa-2 cell lysate: sc-2285.

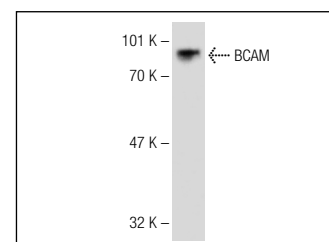
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



BCAM (B12): sc-73731. Western blot analysis of BCAM expression in non-transfected: sc-117752 (A) and human BCAM transfected: sc-116095 (B) 293T whole cell lysates.



BCAM (B12): sc-73731. Western blot analysis of BCAM expression in MIA PaCa-2 whole cell lysate.

PROTOCOLS

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