SANTA CRUZ BIOTECHNOLOGY, INC.

BCAM (BRIC221): sc-59753

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.

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. 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.
4. 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.
5. Murphy, M.M., et al. 2005. Role of Rap1 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 19q13.32.

SOURCE

BCAM (BRIC221) is a mouse monoclonal antibody raised against erythrocytes 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 (BRIC221) is available conjugated to either phycoerythrin (sc-59753 PE) or fluorescein (sc-59753 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) 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 (BRIC221) is recommended for detection of a non-polymorphic determinant on both the 85 kDa and 78 kDa BCAM of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and flow cytometry (1 µg per 1 x 10^6 cells).

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.

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.

SELECT PRODUCT CITATIONS

1. Van Der Meijden, P.E., et al. 2012. Platelet- and erythrocyte-derived microparticles trigger thrombin generation via factor XIIa. J. Thromb. Haemost. 10: 1355-1362.

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.