SANTA CRUZ BIOTECHNOLOGY, INC.

BCAS2 (C-17): sc-103407



BACKGROUND

BCAS2 (breast carcinoma amplified sequence 2), also designated DAM1 (DNA amplified in mammary carcinoma 1 protein) or spliceosome-associated SPF 27, is a ubiquitously expressed nuclear protein that was originally identified as being overexpressed in various breast cancer cell lines. BCAS2 is now known to be a component of the spliceosome, participating in the removal of introns from mRNA precursors. BCAS2 specifically interacts (in a ligand-independent manner) with TR β (thyroid hormone receptor β), ER α (estrogen receptor α), ERB, PR (progesterone receptor) and PPARy (peroxisome proliferator-activated receptor γ). BCAS2 functions as an ER co-activator and is capable of enhancing ER-mediated transcription. This suggests that BCAS2 is involved in the development of breast cancer.

REFERENCES

- 1. Nagasaki, K., Maass, N., Manabe, T., Hanzawa, H., Tsukada, T., Kikuchi, K. and Yamaguchi, K. 1999. Identification of a novel gene, DAM1, amplified at chromosome 1p13.3-21 region in human breast cancer cell lines. Cancer Lett. 140: 219-226.
- 2. Maass, N., Rösel, F., Schem, C., Hitomi, J., Jonat, W. and Nagasaki, K. 2002. Amplification of the BCAS2 gene at chromosome 1p13.3-21 in human primary breast cancer. Cancer Lett. 185: 219-223.
- 3. Lee, S., Ha, S., Chung, M., Kim, Y. and Choi, Y. 2002. Mouse Dam1 regulates pro-apoptotic activity of Blk in mammary epithelial cells. Cancer Lett. 188: 121-126
- 4. Qi, C., Zhu, Y.T., Chang, J., Yeldandi, A.V., Rao, M.S. and Zhu, Y.J. 2005. Potentiation of estrogen receptor transcriptional activity by breast cancer amplified sequence 2. Biochem. Biophys. Res. Commun. 328: 393-398.
- 5. Worsham, M.J., Pals, G., Schouten, J.P., Miller, F., Tiwari, N., van Spaendonk, R. and Wolman, S.R. 2006. High-resolution mapping of molecular events associated with immortalization, transformation, and progression to breast cancer in the MCF10 model. Breast Cancer Res. Treat. 96: 177-186.

CHROMOSOMAL LOCATION

Genetic locus: BCAS2 (human) mapping to 1p13.2; Bcas2 (mouse) mapping to 3 F2.2.

SOURCE

BCAS2 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of BCAS2 of human origin.

PRODUCT

Each vial contains 200 µg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103407 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

BCAS2 (C-17) is recommended for detection of BCAS2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with family members BCAS3 or BCAS4.

BCAS2 (C-17) is also recommended for detection of BCAS2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for BCAS2 siRNA (h): sc-88190, BCAS2 siRNA (m): sc-105116, BCAS2 shRNA Plasmid (h): sc-88190-SH, BCAS2 shRNA Plasmid (m): sc-105116-SH, BCAS2 shRNA (h) Lentiviral Particles: sc-88190-V and BCAS2 shRNA (m) Lentiviral Particles: sc-105116-V.

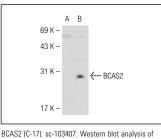
Molecular Weight of BCAS2: 26 kDa.

Positive Controls: BCAS2 (h2): 293T Lysate: sc-172935.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



BCAS2 expression in non-transfected: sc-117752 (A) and human BCAS2 transfected: sc-172935 (B) 293T whole cell lysates

RESEARCH USE

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

PROTOCOLS

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