

# BCAS3 (H-300): sc-98360

## BACKGROUND

BCAS3 (breast carcinoma amplified sequence 3), also designated MAAB or GAOB1, is a 913 amino acid protein that is believed to be involved in breast cancer progression. The gene is regulated by ER $\alpha$  (estrogen receptor  $\alpha$ ) and expressed in multiple tissues, including malignant human brain lesions. It is overexpressed and amplified in breast cancer cell lines. BCAS3 contains three WD40 repeat regions, a bromodomain, a rare zinc-finger motif, four probable DNA-binding domains and two kinase-inducible phosphorylation domains. Five variants are produced due to alternative splicing. BCAS3 interacts with Histone H3 and PCAF, which is indicative of histone acetyltransferase activity. BCAS3 also exhibits ER $\alpha$  transactivation activity by acting as a co-activator with PELP1 or MTA1. The amplification and translocation between the BCAS3 gene and the BCAS4 gene results in a fusion transcript is overexpressed in MCF7 cells.

## REFERENCES

- Bärlund, M., et al. 2002. Cloning of BCAS3 (17q23) and BCAS4 (20q13) genes that undergo amplification, overexpression, and fusion in breast cancer. *Genes Chromosomes Cancer* 35: 311-317.
- Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2003. John Hopkins University, Baltimore, MD. MIM Number: 607470. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Hahn, Y., et al. 2004. Finding fusion genes resulting from chromosome rearrangement by analyzing the expressed sequence databases. *Proc. Natl. Acad. Sci. USA* 101: 13257-13261.
- Lin, L., et al. 2006. Multiple forms of genetic instability within a 2-Mb chromosomal segment of 3q26.3-q27 are associated with development of esophageal adenocarcinoma. *Genes Chromosomes Cancer* 45: 319-331.
- Gururaj, A.E., et al. 2006. MTA1, a transcriptional activator of breast cancer amplified sequence 3. *Proc. Natl. Acad. Sci. USA* 103: 6670-6675.
- Gururaj, A.E., et al. 2006. Breast cancer-amplified sequence 3, a target of metastasis-associated protein 1, contributes to Tamoxifen resistance in premenopausal patients with breast cancer. *Cell Cycle* 5: 1407-1410.

## CHROMOSOMAL LOCATION

Genetic locus: BCAS3 (human) mapping to 17q23.2; Bcas3 (mouse) mapping to 11 C.

## SOURCE

BCAS3 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of BCAS3 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

BCAS3 (H-300) is recommended for detection of BCAS3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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). BCAS3 (H-300) is also recommended for detection of BCAS3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for BCAS3 siRNA (h): sc-72624, BCAS3 siRNA (m): sc-72625, BCAS3 shRNA Plasmid (h): sc-72624-SH, BCAS3 shRNA Plasmid (m): sc-72625-SH, BCAS3 shRNA (h) Lentiviral Particles: sc-72624-V and BCAS3 shRNA (m) Lentiviral Particles: sc-72625-V.

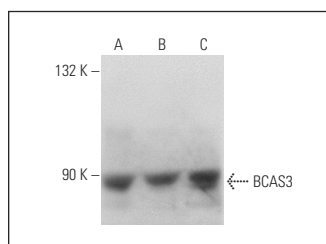
Molecular Weight of BCAS3: 99 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, MCF7 whole cell lysate: sc-2206 or HeLa whole cell lysate: sc-2200.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## DATA



BCAS3 (H-300): sc-98360. Western blot analysis of BCAS3 expression in MCF7 (A), HeLa (B) and K-562 (C) whole cell lysates.

## RESEARCH USE

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

**MONOS**  
Satisfaction  
Guaranteed

Try **BCAS3 (D-6): sc-365131**, our highly recommended monoclonal alternative to BCAS3 (H-300).