

BCAS3 (D-20): sc-70025

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 α (estrogen receptor α) 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 α 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

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- 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.
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- Gururaj, A.E., et al. 2007. Estrogen induces expression of BCAS3, a novel estrogen receptor- α co-activator, through proline-, glutamic acid-, and leucine-rich protein-1 (PELP1). *Mol. Endocrinol.* 21: 1847-1860.

CHROMOSOMAL LOCATION

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

SOURCE

BCAS3 (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of BCAS3 of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-70025 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BCAS3 (D-20) 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), 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 (D-20) is also recommended for detection of BCAS3 in additional species, including equine, canine, bovine, porcine and avian.

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 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.

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.