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 ERα (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 ERα 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 overexpressed in MCF7 cells.

REFERENCES


CHROMOSOMAL LOCATION

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

SOURCE

BCAS3 (D-6) is a mouse monoclonal antibody raised against amino acids 1-300 mapping to the N-terminus of BCAS3 of human origin.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain 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 (D-6) is recommended for detection of BCAS3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

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: A2058 whole cell lysate: sc-364178, K-562 whole cell lysate: sc-2203 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG1BP-HRP: sc-516102 or m-IgG1 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
3) Immunofluorescence: use m-IgG1BP-FITC: sc-516140 or m-IgG1BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA

BCAS3 (D-6): sc-365131. Western blot analysis of BCAS3 expression in K-562 (A), HeLa (B) and A2058 (C) whole cell lysates.

BCAS3 (D-6): sc-365131. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear and cytoplasmic localization (A). Immunofluorescence staining of formalin-fixed SH-SY5Y cells showing nuclear and cytoplasmic localization (B).

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.