**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 with PELP1 or MTA1. The amplification and translocation between the BCAS3 and BCAS4 genes exhibits ERα transactivation activity by acting as a co-activator with PELP1 or MTA1. The amplification and translocation between the BCAS3 and BCAS4 genes results in a fusion transcript overexpressed 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 breast cancer cell lines.

**REFERENCES**

5. Gururaj, A.E., et al. 2006. MTA1, a transcriptional activator of breast cancer. Histone H3 and PCAF, which is indicative of histone acetyltransferase activity.

**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 at 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.

BCAS3 (D-6) is available conjugated to agarose (sc-365131 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365131 HRP), 200 µg/ml, for WB, hICP and ELISA; to either phycoerythrin (sc-365131 PE), fluorescein (sc-365131 FITC), Alexa Fluor® 488 (sc-365131 AF488), Alexa Fluor® 546 (sc-365131 AF546), Alexa Fluor® 594 (sc-365131 AF594) or Alexa Fluor® 647 (sc-365131 AF647), 200 µg/ml, for WB (RGB), IF, hICP and FCM; and to either Alexa Fluor® 680 (sc-365131 AF680) or Alexa Fluor® 790 (sc-365131 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**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: HEL 92.1.7 cell lysate: sc-2270, 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-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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2030 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**STORAGE**

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

**RESEARCH USE**

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

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