

BCAS3 (D-6): sc-365131

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

- 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[™]. 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.

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 μ g 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 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365131 HRP), 200 μ g/ml, for WB, IHC(P) 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 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-365131 AF680) or Alexa Fluor[®] 790 (sc-365131 AF790), 200 μ g/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 μ g per 100-500 μ 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).

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.

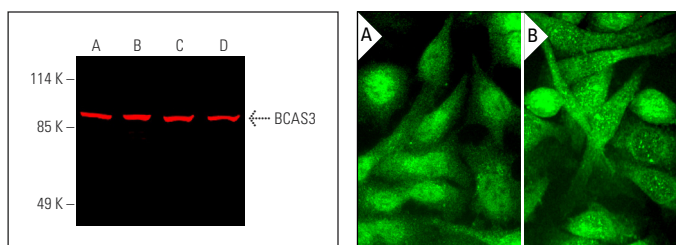
Molecular Weight of BCAS3: 99 kDa.

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-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-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. Near-infrared western blot analysis of BCAS3 expression in HeLa (A), K-562 (B), A2058 (C) and HEL 92.1.7 (D) whole cell lysates. Blocked with UltraCruz[®] Blocking Reagent: sc-516214. Detection reagent used: m-IgG κ BP-CFL 790: sc-516181.

BCAS3 (D-6): sc-365131. Immunofluorescence staining of formalin-fixed Hep G2 (A) and SW480 (B) cells showing nuclear and cytoplasmic localization.

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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