

BAI-3 (H-210): sc-66817

BACKGROUND

Brain-specific angiogenesis inhibitors, including BAI-1, BAI-2 and BAI-3, are integral membrane proteins belonging to the G protein-coupled receptor 2 family. In addition to inhibiting angiogenesis in the brain, BAI proteins are also expressed in the heart, thymus, skeletal muscle and a variety of cell lines. BAI-2 is predominantly expressed in brain and, to a lesser extent, in heart. Reduced expression may be observed in some glioblastoma cell lines suggesting, that BAI-3 may function in the suppression of glioblastoma. Localization of BAI-3 in most neurons of the cerebral cortex is analogous with BAI-1 and BAI-2 expression in the adult brain, but varies in the developing brain. The activity of brain-specific angiogenesis inhibitor proteins has been inversely correlated with vascularization in some cancer tissues. BAI-3 activity may be significant in the early phases of ischemia-induced brain angiogenesis and in brain tumor progression. A better understanding of the anti-angiogenic activity of these BAIs may offer potential therapeutic benefits.

REFERENCES

1. Nishimori, H., et al. 1997. A novel brain-specific p53-target gene, BAI-1, containing Thrombospondin type 1 repeats inhibits experimental angiogenesis. *Oncogene* 15: 2145-2150.
2. Shiratsuchi, T., et al. 1998. Cloning and characterization of BAI-associated protein 1: a PDZ domain-containing protein that interacts with BAI-1. *Biochemistry* 247: 597-604.
3. Kee, H.J., et al. 2002. Expression of brain-specific angiogenesis inhibitor 2 (BAI-2) in normal and ischemic brain: involvement of BAI-2 in the ischemia-induced brain. *J. Cereb. Blood Flow Metab.* 22: 1054-1067.
4. Kaur, B., et al. 2003. Brain angiogenesis inhibitor 1 is differentially expressed in normal brain and glioblastoma independently of p53 expression. *Am. J. Pathol.* 162: 19-27.
5. Kee, H.J., et al. 2004. Expression of brain-specific angiogenesis inhibitor 3 (BAI-3) in normal brain and implications for BAI-3 in ischemia-induced brain angiogenesis and malignant glioma. *FEBS Lett.* 569: 307-316.
6. SWISS-PROT/TrEMBL (O60242). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: BAI3 (human) mapping to 6q12; Bai3 (mouse) mapping to 1 A5.

SOURCE

BAI-3 (H-210) is a rabbit polyclonal antibody raised against amino acids 71-280 mapping within an N-terminal extracellular domain of BAI-3 of human origin.

PRODUCT

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

APPLICATIONS

BAI-3 (H-210) is recommended for detection of BAI-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

BAI-3 (H-210) is also recommended for detection of BAI-3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for BAI-3 siRNA (h): sc-45212, BAI-3 siRNA (m): sc-45213, BAI-3 shRNA Plasmid (h): sc-45212-SH, BAI-3 shRNA Plasmid (m): sc-45213-SH, BAI-3 shRNA (h) Lentiviral Particles: sc-45212-V and BAI-3 shRNA (m) Lentiviral Particles: sc-45213-V.

Molecular Weight of BAI-3: 171 kDa.

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™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) 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™ Mounting Medium: sc-24941.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.