SANTA CRUZ BIOTECHNOLOGY, INC.

BAI-2 (6A12): sc-517130

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. Expression patterns of BAI-2 in the developing brain distinctly increase as development progresses. Localization of BAI-2 in most neurons of the cerebral cortex is analogous with BAI-1 expression. The activity of brain-specific angiogenesis inhibitor proteins has been inversely correlated with vascularization in some cancer tissues. Ischemic brain shows notably decreased expression of BAI-2 after hypoxia, which precludes increased expression of vascular endothelial growth factor, VEGF. 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 ischemi-ainduced 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.

CHROMOSOMAL LOCATION

Genetic locus: ADGRB2 (human) mapping to 1p35.2.

SOURCE

BAI-2 (6A12) is a mouse monoclonal antibody raised against amino acids 22-108 representing partial length BAI-2 of human origin.

PRODUCT

Each vial contains 100 µg IgG_3 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.

PROTOCOLS

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

APPLICATIONS

BAI-2 (6A12) is recommended for detection of BAI-2 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

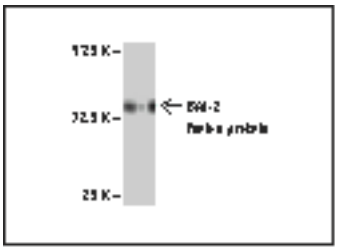
Suitable for use as control antibody for BAI-2 siRNA (h): sc-45210, BAI-2 shRNA Plasmid (h): sc-45210-SH and BAI-2 shRNA (h) Lentiviral Particles: sc-45210-V.

Molecular Weight of BAI-2: 171 kDa.

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, 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).

DATA



RESEARCH USE

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