SANTA CRUZ BIOTECHNOLOGY, INC.

nArgBP2 (R-14): sc-14137

BACKGROUND

Arg and c-Abl represent the mammalian members of the Abelson family of non-receptor protein-tyrosine kinases. They interact with the Arg/Abl binding proteins (ArgBPs) via SH3 domains present in the carboxy end of the ArgBPs. One member of the Arg/Abl binding protein family, ArgBP2 is expressed in epithelial and cardiac muscle cells. The subcellular localization of ArgBP2 suggests that it functions as an adapter protein in the assembly of signaling complexes in stress fibers, and that it is a potential link between Abl family kinases and the actin cytoskeleton. The human ArgBP2 gene, which maps to chromosome 4, encodes multiple transcripts that yield different isoforms of ArgBP2. Another member of the ArgBP family, nArgBP2, which is specifically expressed in neural tissue, has the carboxy terminal SH3 domains characteristic of Arg/Abl binding proteins, as well as a sorbin homology domain near the N-terminus and a zinc finger motif in the middle region of the protein. nArgBP2 interacts with the proline rich region of SAPAP via its third SH3 domain. In rat brain, nArgBP2 colocalizes with SAPAP at the synapses of the cerebellum.

REFERENCES

1. Kruh, G.D., Perego, R., Miki, T. and Aaronson, S.A. 1990. The complete coding sequence of arg defines the Abelson subfamily of cytoplasmic tyrosine kinases. Proc. Natl. Acad. Sci. USA 87: 5802-5806.
2. Wang, B., Golemis, E.A. and Kruh, G.D. 1997. ArgBP2, a multiple Src homology 3 domain-containing, Arg/Abl-interacting protein, is phosphorylated in v-Abl-transformed cells and localized in stress fibers and cardiocyte Z-disks. J. Biol. Chem. 272: 17542-17550.
3. Kawabe, H., Hata, Y., Takeuchi, M., Ide, N., Mizoguchi, A. and Takai, Y. 1999. nArgBP2, a novel neural member of ponsin/ArgBP2/vinexin family that interacts with synapse-associated protein 90/postsynaptic density-95-associated protein (SAPAP). J. Biol. Chem. 274: 30914-30918.
4. Hirao, K., Hata, Y., Deguchi, M., Yao, I., Ogura, M., Rokukawa, C., Kawabe, H., Mizoguchi, A. and Takai, Y. 2000. Association of synapse-associated protein 90/postsynaptic density-95-associated protein (SAPAP) with neurofilaments. Genes Cells. 5: 203-210.
5. Locus Link (http://www.ncbi.nlm.nih.gov/LocusLink) LocusID: 8470

CHROMOSOMAL LOCATION

Genetic locus: Argp2 (mouse) mapping to 8 B1.1.

SOURCE

nArgBP2 (R-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of nArgBP2 of rat origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-14137 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

nArgBP2 (R-14) is recommended for detection of neural nArgBP2 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

nArgBP2 (R-14) is also recommended for detection of neural nArgBP2 in additional species, including equine, canine, bovine and porcine.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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.