SANTA CRUZ BIOTECHNOLOGY, INC.

Abi-2 (B-8): sc-271717

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Abelson oncogene was initially identified as the viral transforming component of Abelson murine leukemia virus (A-MuLV). The Abelson gene (Abl1) encodes a SH2-domain bearing tyrosine kinase which conducts mitogenic signaling pursuant to growth factor receptor ligation. The Abl interactor proteins, Abi-1 and Abi-2, are SH3-domain containing proteins that bind to the proline-rich motifs of Abl and activate the kinase function. Two splice variants of Abi-1 are widely expressed, with the highest levels found in bone marrow, spleen, brain and testis. Abi-1 and Abi-2 are thought to negatively regulate cell growth and transformation, including cellular transformation through v-Abl. Abl1, the gene encoding Abi-1, has been shown to translocate and fuse with MLL (mixed lineage leukemia) gene in some cases of acute myeloid leukemia (AML). The Abi proteins have also been identified as mediators of cell motility by regulating Actin polymerization in lamellipodia and filopodia.

REFERENCES

1. Abelson, H.T., et al. 1970. Lymphosarcoma: virus-induced thymic-independent disease in mice. Cancer Res. 30: 2213-2222.
2. Prywes, R., et al. 1983. Sequences of the A-MuLV protein needed for fibroblasts and lymphoid cell transformation. Cell 34: 569-579.
3. Overduin, M., et al. 1992. Three-dimensional solution structure of the Src homology 2 domain of c-Abl. Cell 70: 697-704.
4. Shi, Y., et al. 1995. Abl-interactor-1, a novel SH3 protein binding to the carboxy-terminal portion of the Abl protein, suppresses v-Abl transforming activity. Genes Dev. 9: 2583-2597.
5. Taki, T., et al. 1998. Abi-1, a human homolog to mouse Abl-interactor 1, fuses the MLL gene in acute myeloid leukemia with t(10;11) (p11.2;q23). Blood 92: 1125-1130.
6. Juang, J.L., et al. 1999. *Drosophila* Abelson interacting protein (dAbi) is a positive regulator of Abelson tyrosine kinase activity. Oncogene 18: 5138-5147.
7. Fan, P.D., et al. 2000. Abl interactor 1 binds to Sos and inhibits epidermal growth factor- and v-Abl-induced activation of extracellular signal-regulated kinases. Mol. Cell. Biol. 20: 7591-7601.
8. Ikeguchi, A., et al. 2001. Inhibition of v-Abl transformation in 3T3 cells overexpressing different forms of the Abelson interactor protein Abi-1. Oncogene 20: 4926-4934.

CHROMOSOMAL LOCATION

Genetic locus: ABI2 (human) mapping to 2q33.2; Abi2 (mouse) mapping to 1 C2.

SOURCE

Abi-2 (B-8) is a mouse monoclonal antibody raised against amino acids 271-320 mapping within an internal region of Abi-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Abi-2 (B-8) is recommended for detection of Abi-2 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), immunohistochemistry (including paraffin-embedded sections) (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 Abi-2 siRNA (h): sc-40308, Abi-2 siRNA (m): sc-40309, Abi-2 shRNA Plasmid (h): sc-40308-SH, Abi-2 shRNA Plasmid (m): sc-40309-SH, Abi-2 shRNA (h) Lentiviral Particles: sc-40308-V and Abi-2 shRNA (m) Lentiviral Particles: sc-40309-V.

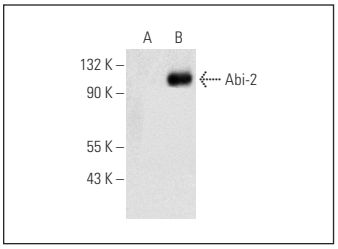
Molecular Weight of Abi-2: 68 kDa.

Positive Controls: Abi-2 (h): 293T Lysate: sc-176387 or H69AR whole cell lysate: sc-364382.

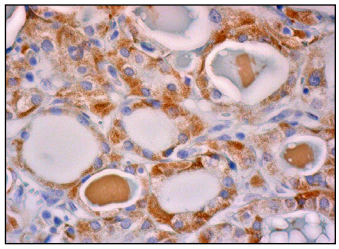
RECOMMENDED SUPPORT REAGENTS

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-2003 (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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Abi-2 (B-8): sc-271717. Western blot analysis of Abi-2 expression in non-transfected: sc-117752 (**A**) and human Abi-2 transfected: sc-176387 (**B**) 293T whole cell lysates.



Abi-2 (B-8): sc-271717. Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing cytoplasmic staining of glandular cells.

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.