SANTA CRUZ BIOTECHNOLOGY, INC.

Abi-2 (P-20): sc-20327

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. ABI1, 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.

CHROMOSOMAL LOCATION

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

SOURCE

Abi-2 (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Abi-2 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.

Blocking peptide available for competition studies, sc-20327 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Abi-2 (P-20) is recommended for detection of Abelson interacting protein 2 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).

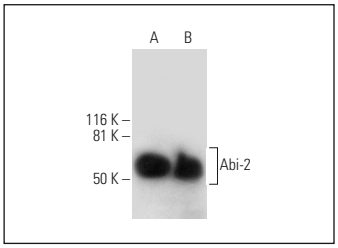
Abi-2 (P-20) is also recommended for detection of Abelson interacting protein 2 in additional species, including equine, canine, bovine, porcine and avian.

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.

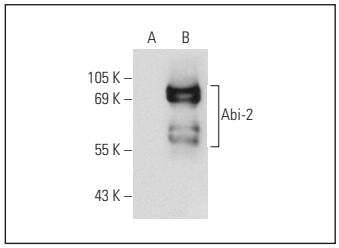
Molecular Weight of Abi-2: 68 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or Abi-2 (h): 293T Lysate: sc-176387.

DATA



Abi-2 (P-20): sc-20327. Western blot analysis of Abi-2 expression in HeLa (**A**) and Jurkat (**B**) whole cell lysates.



Abi-2 (P-20): sc-20327. 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.

SELECT PRODUCT CITATIONS

1. Kano, S., et al. 2008. Tripartite motif protein 32 facilitates cell growth and migration via degradation of Abl-interactor 2. Cancer Res. 68: 5572-5580.
2. Derivery, E., et al. 2009. The Wave complex is intrinsically inactive. Cell Motil. Cytoskeleton 66: 777-790.
3. Sugiyama, Y., et al. 2010. Secreted frizzled-related protein disrupts PCP in eye lens fiber cells that have polarised primary cilia. Dev. Biol. 338: 193-201.

RESEARCH USE

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