

Abi-2 (h): 293T Lysate: sc-176387

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.
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.
9. Stradal, T., et al. 2001. The Abl interactor protein localizes to site of Actin polymerization at the tips of lamellipodia and filopodia. *Curr. Biol.* 11: 891-895.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: ABI2 (human) mapping to 2q33.2.

PRODUCT

Abi-2 (h): 293T Lysate represents a lysate of human Abi-2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Abi-2 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Abi-2 antibodies. Recommended use: 10-20 µl per lane.

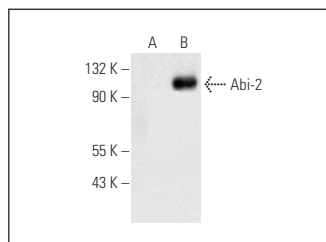
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Abi-2 (B-8): sc-271717 is recommended as a positive control antibody for Western Blot analysis of enhanced human Abi-2 expression in Abi-2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

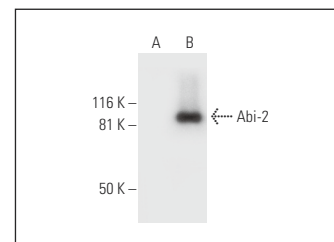
RECOMMENDED SUPPORT REAGENTS

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.

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-3): sc-393982. 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.

RESEARCH USE

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