

Abi-2 (B-3): sc-393982



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.

CHROMOSOMAL LOCATION

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

SOURCE

Abi-2 (B-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 220-249 within an internal region of Abi-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Abi-2 (B-3) is available conjugated to agarose (sc-393982 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393982 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393982 PE), fluorescein (sc-393982 FITC), Alexa Fluor® 488 (sc-393982 AF488), Alexa Fluor® 546 (sc-393982 AF546), Alexa Fluor® 594 (sc-393982 AF594) or Alexa Fluor® 647 (sc-393982 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393982 AF680) or Alexa Fluor® 790 (sc-393982 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393982 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Abi-2 (B-3) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Abi-2 (B-3) is also recommended for detection of Abi-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.

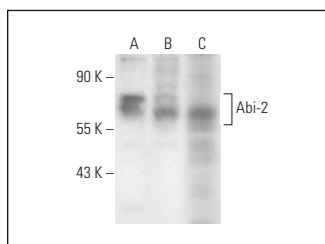
Positive Controls: Abi-2 (h): 293T Lysate: sc-176387, Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SUPPORT REAGENTS

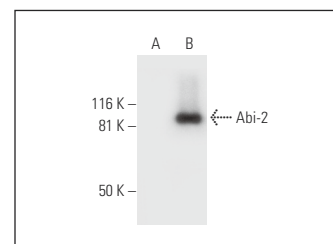
To ensure optimal results, the following support reagents are recommended:

- 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.

DATA



Abi-2 (B-3): sc-393982. Western blot analysis of Abi-2 expression in HeLa (A), Jurkat (B) and H69AR (C) 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.

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.

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