

# Abi-1 (C-1): sc-398554

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: ABL1 (human) mapping to 10p12.1; Abi1 (mouse) mapping to 2 A3.

## SOURCE

Abi-1 (C-1) is a mouse monoclonal antibody raised against amino acids 271-350 mapping within an internal region of Abi-1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Abi-1 (C-1) is available conjugated to agarose (sc-398554 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398554 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398554 PE), fluorescein (sc-398554 FITC), Alexa Fluor® 488 (sc-398554 AF488), Alexa Fluor® 546 (sc-398554 AF546), Alexa Fluor® 594 (sc-398554 AF594) or Alexa Fluor® 647 (sc-398554 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398554 AF680) or Alexa Fluor® 790 (sc-398554 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

Abi-1 (C-1) is recommended for detection of Abi-1 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).

Suitable for use as control antibody for Abi-1 siRNA (h): sc-40306, Abi-1 siRNA (m): sc-40307, Abi-1 shRNA Plasmid (h): sc-40306-SH, Abi-1 shRNA Plasmid (m): sc-40307-SH, Abi-1 shRNA (h) Lentiviral Particles: sc-40306-V and Abi-1 shRNA (m) Lentiviral Particles: sc-40307-V.

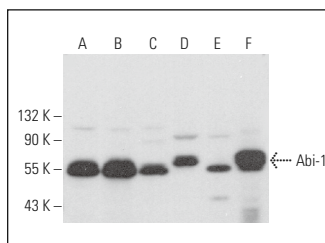
Molecular Weight of Abi-1: 55 kDa.

Positive Controls: MEG-01 cell lysate: sc-2283, U-698-M whole cell lysate: sc-364799 or MCF7 whole cell lysate: sc-2206.

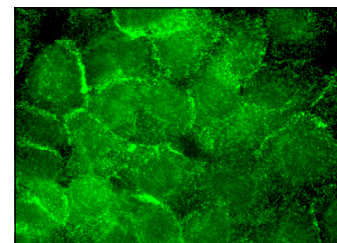
## RECOMMENDED SUPPORT REAGENTS

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-1 (C-1): sc-398554. Western blot analysis of Abi-1 expression in MCF7 (A), MEG-01 (B), U-698-M (C), Sol8 (D), M1 (E) and NIH/3T3 (F) whole cell lysates.



Abi-1 (C-1): sc-398554. Immunofluorescence staining of formalin-fixed A-431 cells showing membrane localization.

## SELECT PRODUCT CITATIONS

1. Lim, S.P., et al. 2018. MiR-181c-BRK1 axis plays a key role in Actin cytoskeleton-dependent T cell function. *J. Leukoc. Biol.* 103: 855-866.

## 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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