

c-Abl (C-19): sc-887

BACKGROUND

The Abl oncogene was initially identified as the viral transforming gene of Abelson murine leukemia virus (A-MuLV). The major translational product of c-Abl has been identified as a protein with tyrosine kinase activity and an SH2 domain. The Abl oncogene is implicated in several human leukemias including 90-95% of chronic myelocytic leukemia (CML), 20-25% of adult acute lymphoblastic leukemia (ALL) and 2-5% of pediatric ALL. In these leukemias the c-Abl proto-oncogene undergoes a (9;22) chromosomal translocation producing the Philadelphia (Ph1) chromosome. The molecular consequence of this translocation is the generation of a chimeric Bcr/c-Abl mRNA encoding activated Abl protein-tyrosine kinase. The Bcr gene has been shown to encode a GTPase-activating protein (GAP) specific for the Ras-related GTP-binding protein, p21rac.

CHROMOSOMAL LOCATION

Genetic locus: ABL1 (human) mapping to 9q34.12, BCR (human) mapping to 22q11.23; Abl1 (mouse) mapping to 2 B, Bcr (mouse) mapping to 10 B5.3.

SOURCE

c-Abl (C-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of c-Abl 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-887 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

c-Abl (C-19) is recommended for detection of c-Abl and Bcr/Abl fusion proteins 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).

c-Abl (C-19) is also recommended for detection of c-Abl and Bcr/Abl fusion proteins in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of c-Abl: 120 kDa.

Molecular Weight of Bcr/Abl fusion protein: 210 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or RAW 264.7 whole cell lysate: sc-2211.

RESEARCH USE

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

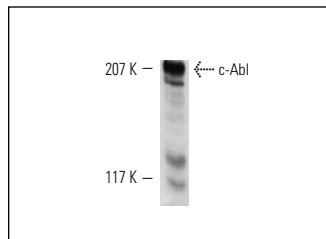
PROTOCOLS

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

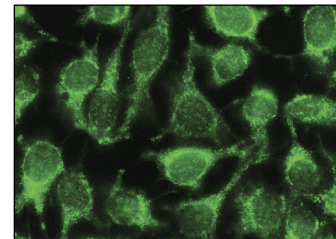
STORAGE

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

DATA



c-Abl (C-19) : sc-887. Western blot analysis of c-Abl expression in K-562 whole cell lysate.



c-Abl (C-19): sc-887. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

SELECT PRODUCT CITATIONS

- de Girolamo, P., et al. 1998. PACAP (pituitary adenylate cyclase-activating peptide)-like immunoreactivity in the gill arch of the goldfish, *Carassius auratus*: distribution and comparison with VIP. *Cell Tissue Res.* 293: 567-571.
- Weisberg, E., et al. 2007. Beneficial effects of combining nilotinib and imatinib in preclinical models of Bcr/Abl+ leukemias. *Blood* 109: 2112-2120.
- Bregeon, J., et al. 2009. Angiotensin II induces RhoA activation through SHP2-dependent dephosphorylation of the RhoGAP p190A in vascular smooth muscle cells. *Am. J. Physiol., Cell Physiol.* 297: C1062-C1070.
- Nelson, E.A., et al. 2011. The STAT5 inhibitor pimoziide decreases survival of chronic myelogenous leukemia cells resistant to kinase inhibitors. *Blood* 117: 3421-3429.
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- de Moura, L.R., et al. 2013. The effect of imatinib mesylate on the proliferation, invasive ability, and radiosensitivity of retinoblastoma cell lines. *Eye* 27: 92-99.
- She, E.X. and Hao, Z. 2013. A novel piperazine derivative potently induces caspase-dependent apoptosis of cancer cells via inhibition of multiple cancer signaling pathways. *Am. J. Transl. Res.* 5: 622-633.
- Bellisola, G., et al. 2013. Rapid recognition of drug-resistance/sensitivity in leukemic cells by Fourier transform infrared microspectroscopy and unsupervised hierarchical cluster analysis. *Analyst* 138: 3934-3945.

MONOS
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Try **c-Abl (8E9): sc-56887** or **c-Abl (SPM328): sc-52990**, our highly recommended monoclonal alternatives to c-Abl (C-19).