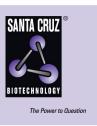
SANTA CRUZ BIOTECHNOLOGY, INC.

Bcr (N-20): sc-885



BACKGROUND

The Bcr gene, mapping on chromosome 22, was initially identified on the basis of its fusion with the c-Abl proto-oncogene on chromosome 9 resulting in the generation of the Philadelphia chromosome in 90-95% of patients with chronic myelogenous leukemia (CML). The Bcr gene encodes for the breakpoint cluster region protein (Bcr). A consequence of this translocation is the generation of a Bcr/c-Abl mRNA encoding an activated c-Abl protein kinase. The Bcr gene has been shown to encode a GTPase-activating protein (GAP) specific for the Ras-related GTP-binding protein, Rac 1 p21. While it has been speculated that the Bcr protein may also stimulate Rac 2 p21 GTPase activity, it has no effect on Ras p21 or Rho p21 GTPases. It is of interest that the GAP domain of Bcr maps outside of the region that remains on chromosome 22 (Philadelphia chromosome) in CML.

CHROMOSOMAL LOCATION

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

SOURCE

Bcr (N-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of Bcr of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-885 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Bcr (N-20) is recommended for detection of Bcr 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). Bcr (N-20) is also recommended for detection of Bcr and Bcr/Abl fusion proteins in additional species, including canine and avian.

Suitable for use as control antibody for Bcr siRNA (h): sc-29795, Bcr siRNA (m): sc-29796, Bcr shRNA Plasmid (h): sc-29795-SH, Bcr shRNA Plasmid (m): sc-29796-SH, Bcr shRNA (h) Lentiviral Particles: sc-29795-V and Bcr shRNA (m) Lentiviral Particles: sc-29796-V.

Molecular Weight of Bcr: 160 kDa.

Molecular Weight of Bcr in Philadelphia-positive leukemia: 130 kDa.

Molecular Weight of Bcr/Abl fusion proteins: 190/210 kDa.

Positive Controls: CTLL-2 cell lysate: sc-2242, HeLa whole cell lysate: sc-2200 or WEHI-231 whole cell lysate: sc-2213.

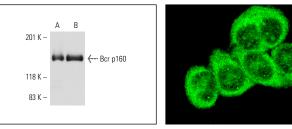
RESEARCH USE

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

STORAGE

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

DATA



Bcr (N-20): sc-885. Western blot analysis of Bcr expression in CTLL-2 (\pmb{A}) and WEHI-231 (\pmb{B}) whole cell lysates.

Bcr (N-20): sc-885. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic staining

SELECT PRODUCT CITATIONS

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- Breen, M., et al. 2008. Evolutionarily conserved cytogenetic changes in hematological malignancies of dogs and humans—man and his best friend share more than companionship. Chromosome Res. 16: 145-154.
- Yi, S.J., et al. 2009. Transglutaminase 2 regulates the GTPase-activating activity of Bcr. J. Biol. Chem. 284: 35645-35651.
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- Jatiani, S.S., et al. 2010. A non-ATP-competitive dual inhibitor of JAK2 and Bcr-Abl kinases: elucidation of a novel therapeutic spectrum based on substrate competitive inhibition. Genes Cancer 1: 331-345.
- Fei, F., et al. 2010. Development of resistance to dasatinib in Bcr/Ablpositive acute lymphoblastic leukemia. Leukemia 24: 813-820.
- 8. Qiu, X., et al. 2012. A requirement for SOCS-1 and SOCS-3 phosphorylation in Bcr-Abl-induced tumorigenesis. Neoplasia 14: 547-558.
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- Zabriskie, M.S., et al. 2015. Extreme mutational selectivity of axitinib limits its potential use as a targeted therapeutic for Bcr-Abl1-positive leukemia. Leukemia 30: 1418-1421.

PROTOCOLS

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