**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 break-point 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, Rac1 p21. While it has been speculated that the Bcr protein may also stimulate Rac2 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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: BCR (human) mapping to 22q11.23; Bcr (mouse) mapping to 10 B5.3.

**SOURCE**

Bcr (B-12) is a mouse monoclonal antibody raised against amino acids 1-300 (deletion 17-219) of Bcr of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Bcr (B-12) is available conjugated to agarose (sc-28375 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-28375 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-28375 PE), fluorescein (sc-28375 FITC), Alexa Fluor® 488 (sc-28375 AF488) or Alexa Fluor® 647 (sc-28375 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

**APPLICATIONS**

Bcr (B-12) is recommended for detection of Bcr 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 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: SUP-T1 whole cell lysate: sc-364796, TF-1 cell lysate: sc-2412 or C2C12 whole cell lysate: sc-364188.

**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, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).


**DATA**

**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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