BACKGROUND

The Ab1 oncogene was initially identified as the viral transforming gene of Abelson murine leukemia virus (A-MuLV). The major translational product of c-Ab1 has been identified as a protein with tyrosine kinase activity and an SH2 domain. The Ab1 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-Ab1 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-Ab1 mRNA encoding activated Ab1 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.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: ABL1 (human) mapping to 9q34.12.

SOURCE

p-c-Ab1 (7.Tyr 412) is a mouse monoclonal antibody raised against a short amino acid sequence containing Tyr 412 phosphorylated of c-Ab1 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.

p-c-Ab1 (7.Tyr 412) is available conjugated to agarose (sc-293130 AC) and goat antibody phosphatase (sc-200312A) treated (sc-293130 AF680) or Alexa Fluor® 790 (sc-293130 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

p-c-Ab1 (7.Tyr 412) is recommended for detection of Tyr 412 phosphorylated c-Ab1 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for c-Ab1 siRNA (h): sc-29843, c-Ab1 shRNA Plasmid (h): sc-29843-3H and c-Ab1 shRNA (h) Lentiviral Particles: sc-29843-V.

Molecular Weight of p-c-Ab1: 120 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

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 B Blocking Reagent: sc-2233 (use 50 mM NaF, sc-24988, as diluent), Lambda Phosphatase: sc-200312A 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

Western blot analysis of c-Ab1 phosphorylation in untreated (A,C) and lambda protein phosphatase (sc-200312A) treated (B,D) K-562 whole cell lysates. Antibodies tested include p-c-Ab1 (7.Tyr 412): sc-293130 (A,B) and c-Ab1 (K-12): sc-131 (C,D).

SELECT PRODUCT CITATIONS


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. Not for resale.

PROTOCOLS

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