SANTA CRUZ BIOTECHNOLOGY, INC.

BLNK (A-11): sc-514780

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cross-linking of the B cell receptor (BCR) activates a variety of signaling pathways involved in processes such as cell proliferation and apoptosis. Intracellular protein tyrosine kinases such as Syk and Lyn have been implicated in this BCR signal transduction and are thought to play an important role in B cell development. BLNK (for B cell linker protein) is a central linker protein in B cells which has been shown to associate with the effector proteins GRB2, Vav, Nck and PLCγ following activation of the B cell receptor. The two forms of BLNK, p68 and p70, arise from alternate splicing of the human BLNK gene transcript. BLNK is phosphorylated by the Syk tyrosine kinase, which in turn permits activation of downstream effector proteins including GRB2 and PLCγ.

REFERENCES

1. DeFranco, A.L. 1997. The complexity of signaling pathways activated by the Bcr. Curr. Opin. Immunol. 9: 296-308.
2. Kurosaki, T. 1997. Molecular mechanisms in B cell antigen receptor signaling. Curr. Opin. Immunol. 9: 309-318.
3. Reth, M. and Wienands, J. 1997. Initiation and processing of signals from the B cell antigen receptor. Annu. Rev. Immunol. 15: 453-479.
4. Fu, C. and Chan, A.C. 1997. Identification of two tyrosine phosphoproteins, pp70 and pp68, which interact with phospholipase Cγ, GRB2 and Vav after B cell antigen receptor activation. J. Biol. Chem. 272: 27362-27368.
5. Fu, C., et al. 1998. BLNK: a central linker protein in B cell activation. Immunity 9: 93-103.

CHROMOSOMAL LOCATION

Genetic locus: BLNK (human) mapping to 10q24.1.

SOURCE

BLNK (A-11) is a mouse monoclonal antibody raised against amino acids 201-280 of BLNK of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BLNK (A-11) is available conjugated to agarose (sc-514780 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514780 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514780 PE), fluorescein (sc-514780 FITC), Alexa Fluor® 488 (sc-514780 AF488), Alexa Fluor® 546 (sc-514780 AF546), Alexa Fluor® 594 (sc-514780 AF594) or Alexa Fluor® 647 (sc-514780 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514780 AF680) or Alexa Fluor® 790 (sc-514780 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

BLNK (A-11) is recommended for detection of BLNK p70 and BLNK p68 of 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 BLNK siRNA (h): sc-29810, BLNK shRNA Plasmid (h): sc-29810-SH and BLNK shRNA (h) Lentiviral Particles: sc-29810-V.

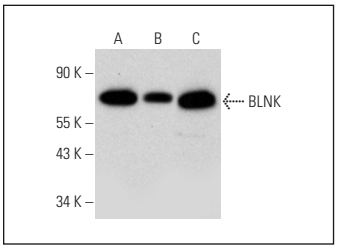
Molecular Weight of BLNK: 68/70 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234, BJAB whole cell lysate: sc-2207 or Ramos cell lysate: sc-2216.

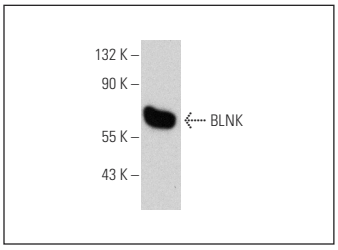
RECOMMENDED SUPPORT REAGENTS

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



BLNK (A-11): sc-514780. Western blot analysis of BLNK expression in Ramos (**A**), BJAB (**B**) and NAMALWA (**C**) whole cell lysates.



BLNK (A-11): sc-514780. Western blot analysis of BLNK expression in Raji whole cell lysate.

RESEARCH USE

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

PROTOCOLS

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