

# p-BLNK (Tyr 84)-R: sc-28517-R

## 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 PLC  $\gamma$  following activation of the B cell receptor. The two forms of BLNK, pp68 and pp70, 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 PLC  $\gamma$ .

## REFERENCES

- DeFranco, A.L. 1997. The complexity of signaling pathways activated by the BCR. *Curr. Opin. Immunol.* 9: 296-308.
- Kurosaki, T. 1997. Molecular mechanisms in B cell antigen receptor signaling. *Curr. Opin. Immunol.* 9: 309-318.
- Reth, M. and Wienands, J. 1997. Initiation and processing of signals from the B cell antigen receptor. *Annu. Rev. Immunol.* 15: 453-479.
- Fu, C. and Chan, A.C. 1997. Identification of two tyrosine phosphoproteins, pp70 and pp68, which interact with phospholipase C  $\gamma$ , GRB2, and Vav after B cell antigen receptor activation. *J. Biol. Chem.* 272: 27362-27368.
- Fu, C., Turck, C.W., Kurosaki, T. and Chan, A.C. 1998. BLNK: a central linker protein in B cell activation. *J. Biol. Chem.* 273: 93-103.

## CHROMOSOMAL LOCATION

Genetic locus: BLNK (human) mapping to 10q23.33; Blnk (mouse) mapping to 19 C3.

## SOURCE

p-BLNK (Tyr 84)-R is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Tyr 84 of B Cell Linker of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-28517 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

p-BLNK (Tyr 84)-R is recommended for detection of Tyr 84 phosphorylated BLNK of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 siRNA (m): sc-29811, BLNK shRNA Plasmid (h): sc-29810-SH, BLNK shRNA Plasmid (m): sc-29811-SH, BLNK shRNA (h) Lentiviral Particles: sc-29810-V and BLNK shRNA (m) Lentiviral Particles: sc-29811-V.

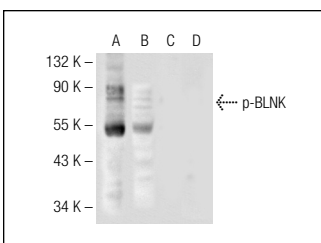
Molecular Weight of p-BLNK: 68/70 kDa.

Positive Controls: Ramos cell lysate: sc-2216.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## DATA



Western blot analysis of BLNK phosphorylation in untreated (A, C) and lambda protein phosphatase treated (B, D) Ramos whole cell lysates. Antibodies tested include p-BLNK (Tyr 84)-R: sc-28517-R (A, B) and BLNK (H-80): sc-15345 (C, D).

## RESEARCH USE

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