Revision 1

#3601 Store at -20C

Phospho-BLNK (Tyr96) Antibody

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H	Endogenous	68, 70	Rabbit	#Q8WV28	29760

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Phospho-BLNK (Tyr96) Antibody detects endogenous levels of BLNK only when phosphorylated at tyrosine 96. The antibody may cross-react with phospho-SLP-76 in T cells.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Tyr96 of human BLNK. Antibodies are purified by protein A and peptide affinity chromatography.

Background

B cell linker protein (BLNK), also known as SLP-65 or BASH, is an adaptor molecule that plays key roles in B cell activation and B cell antigen receptor (BCR) engagement. BLNK acts at the interface between BCR-associated Syk and downstream signaling cascades (1,2). BLNK has multiple SH2 binding motifs (YXXP) at its amino terminus and an SH2 domain at its carboxy terminus. After BCR ligation, BLNK is phosphorylated by Syk at multiple YXXP motifs, including Tyr72, Tyr84, Tyr96, and Tyr178 (1). These phosphorylated motifs provide docking sites for signaling molecules, such as BTK, PLCγ, and Vav. These signaling molecules bind to BLNK through their SH2 domains and together activate downstream signaling pathways (3,4). Through its SH2 domain, BLNK can also interact with tyrosine-phosphorylated targets, such as HPK1, thereby recruiting them to the BCR complex for signaling (5).

Background References

1. Kurosaki, T. and Tsukada, S. (2000) *Immunity* 12, 1-5.
2. Fu, C. et al. (1998) *Immunity* 9, 93-103.
3. Ishiai, M. et al. (1999) *Immunity* 10, 117-25.
4. Baba, Y. et al. (2001) *Proc. Natl. Acad. Sci. USA* 98, 2582-86.
5. Tsuji, S. et al. (2001) *J. Exp. Med.* 194, 529-39.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

Trademarks and Patents

Limited Uses

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