

BLNK (2B11): sc-8003

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 γ 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 PLC γ .

CHROMOSOMAL LOCATION

Genetic locus: BLNK (human) mapping to 10q24.1; Blnk (mouse) mapping to 19 C3.

SOURCE

BLNK (2B11) is a mouse monoclonal antibody raised against amino acids 4-205 mapping at the N-terminus of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BLNK (2B11) is available conjugated to agarose (sc-8003 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-8003 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-8003 PE), fluorescein (sc-8003 FITC), Alexa Fluor® 488 (sc-8003 AF488), Alexa Fluor® 546 (sc-8003 AF546), Alexa Fluor® 594 (sc-8003 AF594) or Alexa Fluor® 647 (sc-8003 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-8003 AF680) or Alexa Fluor® 790 (sc-8003 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

BLNK (2B11) is recommended for detection of BLNK p70 and BLNK p68 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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.

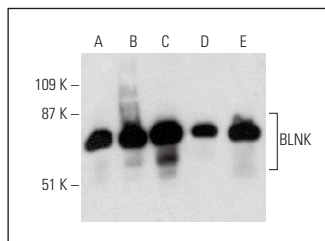
Molecular Weight of BLNK: 68/70 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234, Raji whole cell lysate: sc-364236 or Ramos cell lysate: sc-2216.

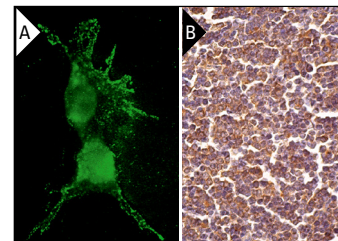
STORAGE

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

DATA



BLNK (2B11) HRP: sc-8003 HRP. Direct western blot analysis of BLNK expression in BJAB (A), Ramos (B), NAMALWA (C), Raji (D) and IB4 (E) whole cell lysates.



BLNK (2B11): sc-8003. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing localized staining within the cytoplasm (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing cytoplasmic staining of cells in white pulp (B).

SELECT PRODUCT CITATIONS

- Poe, J.C., et al. 2000. CD22 Forms a quaternary complex with SHIP, GRB2, and Shc. *J. Biol. Chem.* 275: 17420-17427.
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- Imai, C., et al. 2004. Expression of the adaptor protein BLNK/SLP-65 in childhood acute lymphoblastic leukemia. *Leukemia* 18: 922-925.
- Kumanogoh, A., et al. 2005. Requirement for CD100-CD72 interactions in fine-tuning of B-cell antigen receptor signaling and homeostatic maintenance of the B-cell compartment. *Int. Immunol.* 17: 1277-1282.
- Albanito, L., et al. 2007. G protein-coupled receptor 30 (GPR30) mediates gene expression changes and growth response to 17 β -estradiol and selective GPR30 ligand G-1 in ovarian cancer cells. *Cancer Res.* 67: 1859-1866.
- Zhang, Q., et al. 2008. Molecular mechanism underlying differential apoptosis between human melanoma cell lines UACC903 and UACC903(+6) revealed by mitochondria-focused cDNA microarrays. *Apoptosis* 13: 993-1004.
- Matsumoto, M., et al. 2009. Large-scale proteomic analysis of tyrosine-phosphorylation induced by T-cell receptor or B-cell receptor activation reveals new signaling pathways. *Proteomics* 9: 3549-3563.
- Seitz, V., et al. 2011. Deep sequencing of MYC DNA-binding sites in Burkitt lymphoma. *PLoS ONE* 6: e26837.
- Casa, A.J., et al. 2012. Estrogen and Insulin-like growth factor-I (IGF-I) independently down-regulate critical repressors of breast cancer growth. *Breast Cancer Res. Treat.* 132: 61-73.

RESEARCH USE

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