# abcam

# Product datasheet

# Anti-BLNK antibody [Y491] ab32418

Recombinant RabMAb

1 References 3 Images

Overview

**Product name** Anti-BLNK antibody [Y491]

**Description** Rabbit monoclonal [Y491] to BLNK

**Host species** Rabbit

**Tested applications** Suitable for: WB, IHC-P

Unsuitable for: Flow Cyt

Species reactivity Reacts with: Human

Predicted to work with: Mouse, Rat

**Immunogen** Synthetic peptide within Human BLNK aa 400-500 (C terminal). The exact sequence is

proprietary.

Positive control Raji cell lysate and human spleen tissue slides.

**General notes** This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb** patents.

#### **Properties**

**Form** 

Storage instructions Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Storage buffer pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA

**Purity** Protein A purified

Clonality Monoclonal

Clone number Y491

**Isotype** IgG

### **Applications**

#### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab32418 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

#### **Application notes**

Is unsuitable for Flow Cyt.

#### **Target**

#### **Function**

Functions as a central linker protein that bridges kinases associated with the B-cell receptor (BCR) with a multitude of signaling pathways, regulating biological outcomes of B-cell function and development. Plays a role in the activation of ERK/EPHB2, MAP kinase p38 and JNK. Modulates AP1 activation. Important for the activation of NF-kappa-B and NFAT. Plays an important role in BCR-mediated PLCG1 and PLCG2 activation and Ca(2+) mobilization and is required for trafficking of the BCR to late endosomes. However, does not seem to be required for pre-BCR-mediated activation of MAP kinase and phosphatidyl-inositol 3 (Pl3) kinase signaling. May be required for the RAC1-JNK pathway. Plays a critical role in orchestrating the pro-B cell to pre-B cell transition (By similarity). Plays an important role in BCR-induced B-cell apoptosis.

#### Tissue specificity

Expressed in B-cell lineage and fibroblast cell lines (at protein level). Highest levels of expression in the spleen, with lower levels in the liver, kidney, pancreas, small intestines and colon.

# Involvement in disease

Defects in BLNK are the cause of agammaglobulinemia type 4 (AGM4) [MIM:613502]. It is a primary immunodeficiency characterized by profoundly low or absent serum antibodies and low or absent circulating B cells due to an early block of B-cell development. Affected individuals develop severe infections in the first years of life.

#### Sequence similarities

Contains 1 SH2 domain.

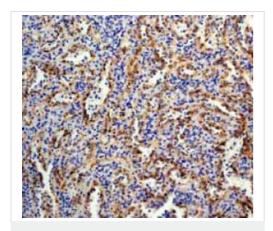
# Post-translational modifications

Following BCR activation, phosphorylated on tyrosine residues by SYK and LYN. When phosphorylated, serves as a scaffold to assemble downstream targets of antigen activation, including PLCG1, VAV1, GRB2 and NCK1. Phosphorylation of Tyr-84, Tyr-178 and Tyr-189 facilitates PLCG1 binding. Phosphorylation of Tyr-96 facilitates BTK binding. Phosphorylation of Tyr-72 facilitates VAV1 and NCK1 binding. Phosphorylation is required for both Ca(2+) and MAPK signaling pathways.

#### **Cellular localization**

Cytoplasm. Cell membrane. BCR activation results in the translocation to membrane fraction.

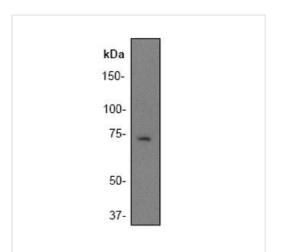
## **Images**



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-BLNK antibody [Y491] (ab32418)

ab32418 at a 1:50 dilution staining BLNK in human spleen tissue using Immunohistochemistry, Paraffin Embedded Tissue.

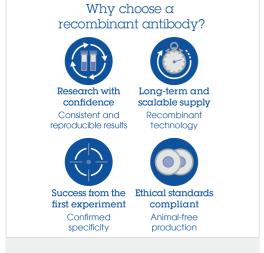
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-BLNK antibody [Y491] (ab32418)

Anti-BLNK antibody [Y491] (ab32418) at 1/500 dilution + Raji cell lysate

Observed band size: 68 kDa



Anti-BLNK antibody [Y491] (ab32418)

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