

**BLK Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1071a****Specification**

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**BLK Antibody - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | WB, IHC, E             |
| Primary Accession | <a href="#">P51451</a> |
| Reactivity        | Human                  |
| Host              | Mouse                  |
| Clonality         | Monoclonal             |
| Isotype           | IgG1                   |

**Description**

BLK ( B lymphoid tyrosine kinase), with 505-amino acid protein (about 56KDa), belongs to the Src non-receptor tyrosine kinases family. Different subcellular localizations of Src-family kinases may be important for the regulation of specific cellular processes such as mitogenesis, cytoskeletal organization, and membrane trafficking. Blk is expressed exclusively by B lymphocytes and it is thought to function in a signal transducing pathway specific to this lineage. B lymphoid expression of an active Blk mutant caused proliferation of B progenitor cells and enhanced responsiveness of these cells to interleukin 7. Thus, sustained activation of Blk induces responses normally associated with the pre-BCR.

**Immunogen**

Purified recombinant fragment of BLK expressed in E. Coli.

**Formulation**

Ascitic fluid containing 0.03% sodium azide.

**BLK Antibody - Additional Information**

**Gene ID** 640

**Other Names**

Tyrosine-protein kinase Blk, 2.7.10.2, B lymphocyte kinase, p55-Blk, BLK

**Dilution**

WB~~1/500 - 1/2000

IHC~~1/200 - 1/1000

E~~N/A

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

BLK Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**BLK Antibody - Protein Information**

**Name** BLK**Function**

Non-receptor tyrosine kinase involved in B-lymphocyte development, differentiation and signaling (By similarity). B-cell receptor (BCR) signaling requires a tight regulation of several protein tyrosine kinases and phosphatases, and associated coreceptors (By similarity). Binding of antigen to the B-cell antigen receptor (BCR) triggers signaling that ultimately leads to B-cell activation (By similarity). Signaling through BLK plays an important role in transmitting signals through surface immunoglobulins and supports the pro-B to pre-B transition, as well as the signaling for growth arrest and apoptosis downstream of B-cell receptor (By similarity). Specifically binds and phosphorylates CD79A at 'Tyr-188' and 'Tyr-199', as well as CD79B at 'Tyr-196' and 'Tyr-207' (By similarity). Also phosphorylates the immunoglobulin G receptors FCGR2A, FCGR2B and FCGR2C (PubMed:<a href="http://www.uniprot.org/citations/8756631" target="\_blank">8756631</a>). With FYN and LYN, plays an essential role in pre-B- cell receptor (pre-BCR)-mediated NF-kappa-B activation (By similarity). Also contributes to BTK activation by indirectly stimulating BTK intramolecular autophosphorylation (By similarity). In pancreatic islets, acts as a modulator of beta-cells function through the up- regulation of PDX1 and NKX6-1 and consequent stimulation of insulin secretion in response to glucose (PubMed:<a href="http://www.uniprot.org/citations/19667185" target="\_blank">19667185</a>). Phosphorylates CGAS, promoting retention of CGAS in the cytosol (PubMed:<a href="http://www.uniprot.org/citations/30356214" target="\_blank">30356214</a>).

**Cellular Location**

Cell membrane; Lipid-anchor. Note=Present and active in lipid rafts. Membrane location is required for the phosphorylation of CD79A and CD79B (By similarity).

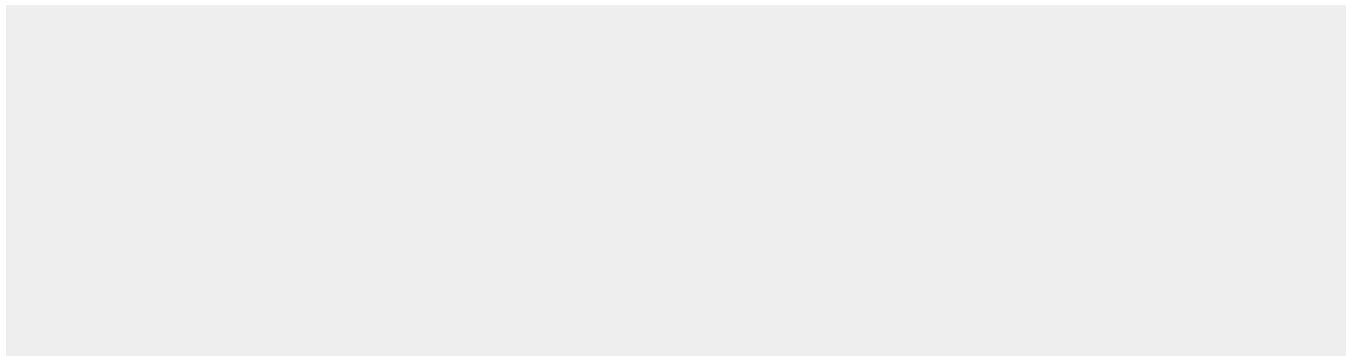
**Tissue Location**

Expressed in lymphatic organs, pancreatic islets, Leydig cells, striate ducts of salivary glands and hair follicles

**BLK Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**BLK Antibody - Images**

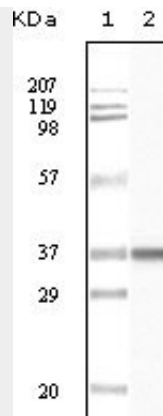


Figure 1: Western blot analysis using BLK mouse mAb against truncated BLK recombinant protein.

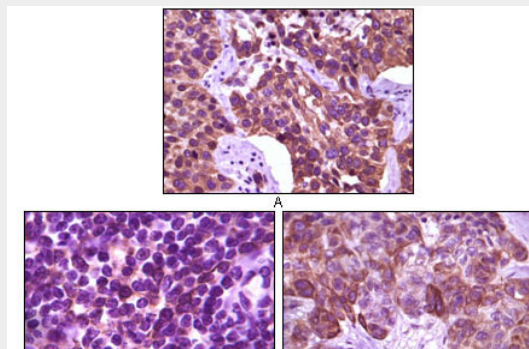


Figure 2: Immunohistochemical analysis of paraffin-embedded human lung carcinoma (A), lymph tissue (B) and skin carcinoma (C), showing membrane localization using BLK mouse mAb with DAB staining.

### BLK Antibody - References

1. Theresa Tretter, Ashley E. Ross, Dominic I. Dordai. J. Exp. Med., Dec 2003; 198: 1863.