



Rabbit Anti-BLK antibody

SL6646R

Product Name:	BLK
Chinese Name:	Blymphocyte酪氨酸激酶抗体
Alias:	B lymphocyte kinase; B lymphoid tyrosine kinase; Blk; BLK nonreceptor tyrosine kinase; BLK_HUMAN; MODY 11; MODY11; P55 BLK; p55-BLK; Tyrosine kinase B lymphocyte specific; Tyrosine protein kinase; Tyrosine-protein kinase BLK.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	58kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human BLK/MODY11:231-330/505
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Modulator of beta-cells function, acting through the up-regulation of PDX1 and NKX6-1 and consequent stimulation of insulin secretion in response to glucose. Function: Non-receptor tyrosine kinase involved in B lymphocyte development, differentiation

and signaling. B-cell receptor (BCR) signaling requires a tight regulation of several protein tyrosine kinases and phosphatases, and associated coreceptors. Binding of antigen to the B-cell antigen receptor (BCR) triggers signaling that ultimately leads to B-cell activation. Signaling through BLK plays an important role in transmitting signals through surface immunoglobulines and supports the pro-B to pre-B transition, as well as the signaling for growth arrest and apoptosis downstream of B-cell receptor. Specifically binds and phosphorylates CD79A at 'Tyr-188' and 'Tyr-199', as well as CD79B at 'Tyr-196' and 'Tyr-207'. Phosphorylates also the immunoglobuline G receptors FCGR2A, FCGR2B and FCGR2C. With FYN and LYN, plays an essential role in pre-B-cell receptor (pre-BCR)-mediated NF-kappa-B activation. Contributes also to BTK activation by indirectly stimulating BTK intramolecular autophosphorylation. 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.

Subunit:

Interacts with CBL (via SH2 domain). Interacts with CD79A and CD79B (via SH2 domain) (By similarity).

Subcellular Location:

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

Tissue Specificity:

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

Post-translational modifications:

Phosphorylated on tyrosine residues after antibody-mediated surface engagement of the B-cell antigen receptor (BCR) (By similarity).

Ubiquitination of activated BLK by the UBE3A ubiquitin protein ligase leads to its degradation by the ubiquitin-proteasome pathway (By similarity).

DISEASE:

Defects in BLK are a cause of maturity-onset diabetes of the young type 11 (MODY11) [MIM:613375]. MODY11 is a form of diabetes that is characterized by an autosomal dominant mode of inheritance, onset in childhood or early adulthood (usually before 25 years of age), a primary defect in insulin secretion and frequent insulin-independence at the beginning of the disease.

Similarity:

Belongs to the protein kinase superfamily. Tyr protein kinase family. SRC subfamily.

Contains 1 protein kinase domain.

Contains 1 SH2 domain.

Contains 1 SH3 domain.

SWISS:
P51451

Gene ID:
640

Database links:

[Entrez Gene: 640](#)Human

[Entrez Gene: 12143](#)Mouse

[Entrez Gene: 364403](#)Rat

[Omim: 191305](#)Human

[SwissProt: P51451](#)Human

[SwissProt: P16277](#)Mouse

[Unigene: 146591](#)Human

[Unigene: 3962](#)Mouse

[Unigene: 20030](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.