

Btk Polyclonal Antibody
Catalog # AP73529**Specification**

Btk Polyclonal Antibody - Product Information

Application	WB
Primary Accession	Q06187
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

Btk Polyclonal Antibody - Additional Information**Gene ID** 695**Other Names**

BTK; AGMX1; ATK; BPK; Tyrosine-protein kinase BTK; Agammaglobulinaemia tyrosine kinase; ATK; B-cell progenitor kinase; BPK; Bruton tyrosine kinase

Dilution

WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications.

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

Btk Polyclonal Antibody - Protein Information**Name** BTK**Synonyms** AGMX1, ATK, BPK**Function**

Non-receptor tyrosine kinase indispensable for B lymphocyte development, differentiation and signaling (PubMed:[19290921](http://www.uniprot.org/citations/19290921)). Binding of antigen to the B-cell antigen receptor (BCR) triggers signaling that ultimately leads to B-cell activation (PubMed:[19290921](http://www.uniprot.org/citations/19290921)). After BCR engagement and activation at the plasma membrane, phosphorylates PLCG2 at several sites, igniting the downstream signaling pathway through calcium mobilization, followed by activation of the protein kinase C (PKC) family members (PubMed:[11606584](http://www.uniprot.org/citations/11606584)). PLCG2 phosphorylation is performed in close cooperation with the adapter protein B-cell linker protein BLNK (PubMed:[11606584](http://www.uniprot.org/citations/11606584)). BTK acts as a platform to bring together a diverse array of signaling proteins and is implicated in cytokine receptor signaling pathways (PubMed:[11606584](http://www.uniprot.org/citations/11606584)).

[16517732](http://www.uniprot.org/citations/16517732), PubMed: [17932028](http://www.uniprot.org/citations/17932028)). Plays an important role in the function of immune cells of innate as well as adaptive immunity, as a component of the Toll-like receptors (TLR) pathway (PubMed: [16517732](http://www.uniprot.org/citations/16517732)). The TLR pathway acts as a primary surveillance system for the detection of pathogens and are crucial to the activation of host defense (PubMed: [16517732](http://www.uniprot.org/citations/16517732)). Especially, is a critical molecule in regulating TLR9 activation in splenic B-cells (PubMed: [16517732](http://www.uniprot.org/citations/16517732), PubMed: [17932028](http://www.uniprot.org/citations/17932028)). Within the TLR pathway, induces tyrosine phosphorylation of TIRAP which leads to TIRAP degradation (PubMed: [16415872](http://www.uniprot.org/citations/16415872)). BTK also plays a critical role in transcription regulation (PubMed: [19290921](http://www.uniprot.org/citations/19290921)). Induces the activity of NF- κ B, which is involved in regulating the expression of hundreds of genes (PubMed: [19290921](http://www.uniprot.org/citations/19290921)). BTK is involved on the signaling pathway linking TLR8 and TLR9 to NF- κ B (PubMed: [19290921](http://www.uniprot.org/citations/19290921)). Acts as an activator of NLRP3 inflammasome assembly by mediating phosphorylation of NLRP3 (PubMed: [34554188](http://www.uniprot.org/citations/34554188)). Transiently phosphorylates transcription factor GTF2I on tyrosine residues in response to BCR (PubMed: [9012831](http://www.uniprot.org/citations/9012831)). GTF2I then translocates to the nucleus to bind regulatory enhancer elements to modulate gene expression (PubMed: [9012831](http://www.uniprot.org/citations/9012831)). ARID3A and NFAT are other transcriptional target of BTK (PubMed: [16738337](http://www.uniprot.org/citations/16738337)). BTK is required for the formation of functional ARID3A DNA-binding complexes (PubMed: [16738337](http://www.uniprot.org/citations/16738337)). There is however no evidence that BTK itself binds directly to DNA (PubMed: [16738337](http://www.uniprot.org/citations/16738337)). BTK has a dual role in the regulation of apoptosis (PubMed: [9751072](http://www.uniprot.org/citations/9751072)). Plays a role in STING1- mediated induction of type I interferon (IFN) response by phosphorylating DDX41 (PubMed: [25704810](http://www.uniprot.org/citations/25704810)).

Cellular Location

Cytoplasm. Cell membrane; Peripheral membrane protein. Nucleus Membrane raft {ECO:0000250|UniProtKB:P35991}. Note=In steady state, BTK is predominantly cytosolic. Following B-cell receptor (BCR) engagement by antigen, translocates to the plasma membrane through its PH domain Plasma membrane localization is a critical step in the activation of BTK. A fraction of BTK also shuttles between the nucleus and the cytoplasm, and nuclear export is mediated by the nuclear export receptor CRM1.

Tissue Location

Predominantly expressed in B-lymphocytes.

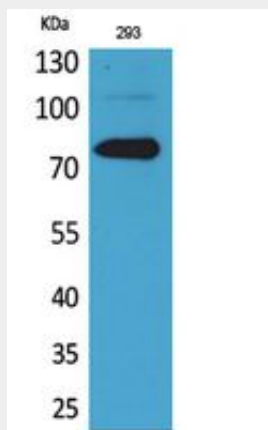
Btk Polyclonal Antibody - Protocols

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](#)

Btk Polyclonal Antibody - Images



Btk Polyclonal Antibody - Background

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