

Rabbit BTK Polyclonal Antibody | anti-BTK antibody

Phospho-BTK (Tyr344) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA328488	Rabbit	Human, Mouse, RatPredicted: Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus	ELISA, Immunohistochemistry, Western Blot

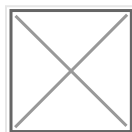
PRODUCT SYNONYMS

BTK; Polyclonal Antibody; Phospho-BTK (Tyr344) Antibody; Agammaglobulinaemia tyrosine kinase; AGMX 1; AGMX1; AT; ATK; B cell progenitor kinase; B-cell progenitor kinase; BPK; Bruton agammaglobulinemia tyrosine kinase; Bruton tyrosine kinase; Bruton's Tyrosine Kinase; Btk; BTK_HUMAN; dominant-negative kinase-deficient Brutons tyrosine kinase; IMD 1; IMD1; MGC126261; MGC126262; OTTHUMP00000063593; PSCTK 1; PSCTK1; truncated Bruton agammaglobulinemia tyrosine kinase; Tyrosine protein kinase BTK; Tyrosine-protein kinase BTK; tyrosine-protein kinase BTK isoform (lacking exon 14; XLA; anti-BTK antibody

PRODUCT SPECIFICATIONS

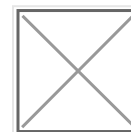
Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted: Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-BTK (Tyr344) Antibody detects endogenous levels of BTK only when phosphorylated at Tyr344.
Purity/Purification	Purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
Form/Format	Liquid; Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	659
Applicable Applications for anti-BTK antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human BTK around the phosphorylation site of Tyr344.
Tissue Specificity	Predominantly expressed in B-lymphocytes.
Subcellular Location	Nucleus; Plasma Membrane
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)

Western blot analysis of Phospho-BTK (Tyr344) in lysates of HeLa , using Phospho-BTK (Tyr344) Antibody.



IHC (Immunohistochemistry)

At 1/100 staining human gastric cancer tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary



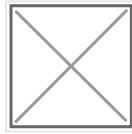
IHC (Immunohistochemistry)

At 1/100 staining rat lung tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary



IHC (Immunohistochemistry)

At 1/100 staining rat brain tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary



IHC (Immunohistochemistry)

At 1/100 staining mouse kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary

ADDITIONAL INFORMATION

Related Product Information for anti-BTK antibody

Description: Non-receptor tyrosine kinase indispensable for B lymphocyte development, differentiation and signaling. Binding of antigen to the B-cell antigen receptor (BCR) triggers signaling that ultimately leads to B-cell activation. 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. PLCG2 phosphorylation is performed in close cooperation with the adapter protein B-cell linker protein BLNK. BTK acts as a platform to bring together a diverse array of signaling proteins and is implicated in cytokine receptor signaling pathways. 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. The TLR pathway acts as a primary surveillance system for the detection of pathogens and are crucial to the activation of host defense. Especially, is a critical molecule in regulating TLR9 activation in splenic B-cells. Within the TLR pathway, induces tyrosine phosphorylation of TIRAP which leads to TIRAP degradation. BTK plays also a critical role in transcription regulation. Induces the activity of NF-kappa-B, which is involved in regulating the expression of hundreds of genes. BTK is involved on the signaling pathway linking TLR8 and TLR9 to NF-kappa-B. Transiently phosphorylates transcription factor GTF2I on tyrosine residues in response to BCR. GTF2I then translocates to the nucleus to bind regulatory enhancer elements to modulate gene expression. ARID3A and NFAT are other transcriptional target of BTK. BTK is required for the formation of functional ARID3A DNA-binding complexes. There is however no evidence that BTK itself binds directly to DNA. BTK has a dual role in the regulation of apoptosis.

Post Translational Modifications: Following B-cell receptor (BCR) engagement, translocates to the plasma membrane where it gets phosphorylated at Tyr-551 by LYN and SYK. Phosphorylation at Tyr-551 is followed by autophosphorylation of Tyr-223 which may create a docking site for a SH2 containing protein. Phosphorylation at Ser-180 by PRKCB, leads in translocation of BTK back to the cytoplasmic fraction. Phosphorylation at Ser-21 and Ser-115 creates a binding site for PIN1 at these Ser-Pro motifs, and promotes it's recruitment.

Subunit Structure: Binds GTF2I through the PH domain. Interacts with SH3BP5 via the SH3 domain. Interacts with IBTK via its PH domain. Interacts with ARID3A, CAV1, FASLG, PIN1, TLR8 and TLR9.

Similarity: The PH domain mediates the binding to inositol polyphosphate and phosphoinositides, leading to its targeting to the plasma membrane. It is extended in the BTK kinase family by a region designated the TH (Tec homology) domain, which consists of about 80 residues preceding the SH3 domain. Belongs to the protein kinase superfamily. Tyr protein kinase family. TEC subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4557377
NCBI GeneID	695
NCBI Accession #	NP_000052.1
NCBI GenBank Nucleotide #	NP_000052.1

UniProt Accession #	Q06187
Molecular Weight	Observed: 77 kDa Predicted: 77 kDa
NCBI Official Full Name	tyrosine-protein kinase BTK isoform 1
NCBI Official Synonym Full Names	Bruton tyrosine kinase
NCBI Official Symbol	BTK
NCBI Official Synonym Symbols	AT; ATK; BPK; XLA; IMD1; AGMX1; IGHD3; PSCTK1
NCBI Protein Information	tyrosine-protein kinase BTK
UniProt Protein Name	Tyrosine-protein kinase BTK
UniProt Gene Name	BTK
UniProt Synonym Gene Names	AGMX1; ATK; BPK; ATK; BPK
UniProt Entry Name	BTK_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/btk-antibody-peptide-elisa-immunohistochemistry-western-blot-elisa/328488>