

BTK Antibody (Ascites)
Mouse Monoclonal Antibody (Mab)
 Catalog # AM2062a

Specification

BTK Antibody (Ascites) - Product Information

Application	WB,E
Primary Accession	Q06187
Other Accession	NP_000052.1
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	76281
Antigen Region	209-239

BTK Antibody (Ascites) - Additional Information

Gene ID 695

Other Names

Tyrosine-protein kinase BTK,
 Agammaglobulinemia tyrosine kinase, ATK,
 B-cell progenitor kinase, BPK, Bruton
 tyrosine kinase, BTK, AGMX1, ATK, BPK

Target/Specificity

This BTK antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 209-239 amino acids from human BTK.

Dilution

WB ~ ~ 1:2000 ~ 8000

Format

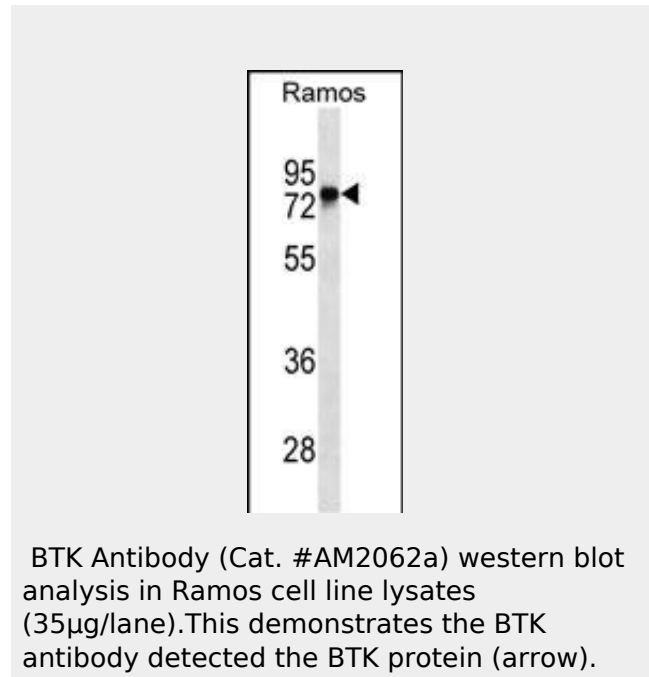
Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.

Storage

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

Precautions

BTK Antibody (Ascites) is for research use only and not for use in diagnostic or therapeutic procedures.



BTK Antibody (Ascites) - Background

The protein encoded by this gene plays a crucial role in B-cell development. Mutations in this gene cause X-linked agammaglobulinemia type 1, which is an immunodeficiency characterized by the failure to produce mature B lymphocytes, and associated with a failure of Ig heavy chain rearrangement.

BTK Antibody (Ascites) - References

Bailey, S.D., et al. *Diabetes Care* 33(10):2250-2253(2010)
 Ng, Y.Y., et al. *Leukemia* 24(9):1617-1630(2010)
 Segat, L., et al. *Vaccine* 28(10):2201-2206(2010)
 Marcotte, D.J., et al. *Protein Sci.* 19(3):429-439(2010)
 Liu, Z., et al. *J. Immunol.* 184(1):244-254(2010)

BTK Antibody (Ascites) - Protein Information**Name** BTK**Synonyms** AGMX1, ATK, BPK**Function**

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.

Cellular Location

Cytoplasm. Cell membrane; Peripheral

membrane protein. Nucleus. 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 Antibody (Ascites) - 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](#)