Datasheet for ABIN5557288

anti-BTK antibody (pTyr223)

1 Image

Go to Product page

Overview

Quantity:	100 µL
Target:	BTK
Binding Specificity:	pTyr223
Reactivity:	Human
Host:	Rabbit
Clonality:	Monoclonal
Conjugate:	This BTK antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Immunogen:	Synthetic peptide derived from human BTK(Y223) around 200-250 amino acids.
Clone:	7B2
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	Purified by Protein A.

Target Details

Target:	BTK
Alternative Name:	BTK (BTK Products)
Background:	Synonyms: Tyrosine-protein kinase BTK, BTK, Agammaglobulinemia tyrosine kinase, ATK B-cell

Target Details

	progenitor kinase, BPK, Bruton tyrosine kinase, AGMX1 Background: 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.
Gene ID:	695
UniProt:	Q06187
Pathways:	Fc-epsilon Receptor Signaling Pathway, Hormone Transport, Activation of Innate immune Response, Regulation of Leukocyte Mediated Immunity, Production of Molecular Mediator of Immune Response, Toll-Like Receptors Cascades, BCR Signaling

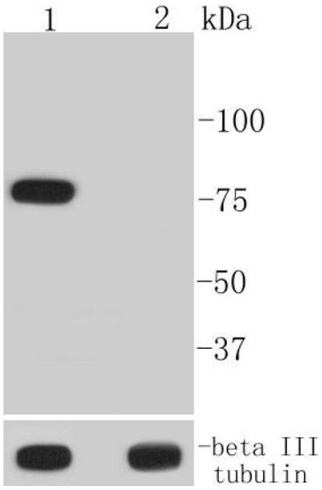
Application Details

Application Notes:	WB 1:300-5000
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 µg/µL
Buffer:	Aqueous buffered solution containing 1xTBS (pH 7.4), 1 % BSA, 40 %Glycerol and 0.05 % Sodium Azide.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

Images



Western Blotting

Image 1. Lane 1: K562 cells treated with pervanadate, Lane 2: Untreated K562 cell lysate probed with BTK (Tyr223) (7B2) Monoclonal Antibody at 1:1000 overnight at 4˚C. Followed by a conjugated secondary antibody.