

Anti-BTK (phospho-Y222) Antibody

Catalog Number: A00245Y222

About BTK

Ubiquitin-editing enzyme that contains both ubiquitin ligase and deubiquitinase activities. Involved in immune and inflammatory responses signaled by cytokines, such as TNF-alpha and IL-1 beta, or pathogens via Toll-like receptors (TLRs) through terminating NF-kappa-B activity. Essential component of a ubiquitin-editing protein complex, comprising also RNF11, ITCH and TAX1BP1, that ensures the transient nature of inflammatory signaling pathways. In cooperation with TAX1BP1 promotes disassembly of E2-E3 ubiquitin protein ligase complexes in IL-1R and TNFR-1 pathways; affected are at least E3 ligases TRAF6, TRAF2 and BIRC2, and E2 ubiquitin-conjugating enzymes UBE2N and UBE2D3. In cooperation with TAX1BP1 promotes ubiquitination of UBE2N and proteasomal degradation of UBE2N and UBE2D3. Upon TNF stimulation, deubiquitinates 'Lys-63'-polyubiquitin chains on RIPK1 and catalyzes the formation of 'Lys-48'-polyubiquitin chains. This leads to RIPK1 proteasomal degradation and consequently termination of the TNF- or LPS-mediated activation of NF-kappa-B. Deubiquitinates TRAF6 probably acting on 'Lys-63'-linked polyubiquitin. Upon T-cell receptor (TCR)-mediated T-cell activation, deubiquitinates 'Lys-63'-polyubiquitin chains on MALT1 thereby mediating disassociation of the CBM (CARD11:BCL10:MALT1) and IKK complexes and preventing sustained IKK activation. Deubiquitinates NEMO/IKBKG; the function is facilitated by TNIP1 and leads to inhibition of NF-kappa-B activation. Upon stimulation by bacterial peptidoglycans, probably deubiquitinates RIPK2. Can also inhibit I-kappa-B-kinase (IKK) through a non-catalytic mechanism which involves polyubiquitin; polyubiquitin promotes association with IKBKG and prevents IKK MAP3K7-mediated phosphorylation. Targets TRAF2 for lysosomal degradation. In vitro able to deubiquitinate 'Lys-11-', 'Lys-48'- and 'Lys-63' polyubiquitin chains. Inhibitor of programmed cell death. Has a role in the function of the lymphoid system. Required for LPS-induced production of proinflammatory cytokines and IFN beta in LPS-tolerized macrophages.

Opipari A.W. Jr., J. Biol. Chem. 265:14705-14708(1990).

Mungall A.J., Nature 425:805-811(2003).

Eliopoulos A.G., J. Virol. 73:1023-1035(1999).

Overview

Product Name	Anti-BTK (phospho-Y222) Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-BTK (phospho-Y222) Antibody catalog # A00245Y222. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q06187

Technical Details

Immunogen	Synthesized peptide derived from human Btk around the non-phosphorylation site of Y223.
Predicted Reactive Species	Canine, Monkey
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG
Form	Liquid
Concentration	1 mg/ml
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>WB: 1:500-1:1000</p>

Anti-BTK (phospho-Y222) Antibody (A00245Y222) Images

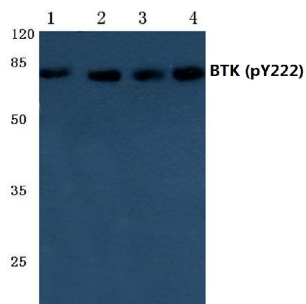


Figure 1. Western blotting validation for Anti-BTK (phospho-Y222) Antibody A00245Y222

Western blot (WB) analysis of p-BTK (Y222) pAb at 1:500 dilution

Lane1: Jurkat whole cell lysate (40ug)

Lane2: K562 whole cell lysate (40ug)

Electrophoresis was performed on a SDS-PAGE gel. To determine SDS-PAGE gel concentration

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