Datasheet for ABIN2746345

BTK Protein

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Overview

Quantity:	5 applications
Target:	BTK
Origin:	Human, Mouse, Monkey, Pig
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Application:	Western Blotting (WB), Positive Control (PC)

Product Details

Purpose:	Purified Protein in ready-to-use SDS sample buffer.
Characteristics:	Phospho specific BTK-selective antibodies were generated against a peptide taken from the human BTK protein spanning AA from 544-561. The BTK-selective antibodies are affinity purified on an immobilized antigen based affinity matrix, the isolated antibodies were then stabilized in antibody stabilization buffer for long-term storage. The anti-BTK-selective antibodies are fully characterized for applications in western blotting and ELISA at the recommended dilutions. The Supplier provides BTK Western blot positive control samples in SDS-PAGE sample buffer.
Purification:	Purified Protein

Target Details

Target:	BTK
Alternative Name:	BTK (BTK Products)

Target Details

Background:	Bruton tyrosine kinase (BTK) is a member of the Tec family kinases with a well-characterized role in BCR-signaling and B-cell activation. BTK is activated upstream by Src-family kinases Blk, Lyn, and Fyn, and Btk in turn phosphorylates and activates phospholipase-Cγ (PLCγ), leading to Ca2+ mobilization and activation of NF-κB and MAP kinase pathways. Mutations in BTK gene in humans give rise to X-linked agammaglobulinemia, an inherited disorder that is characterized by severe B cell-specific defects including severely decreased levels of immunoglobulin production and the absence of B cells, suggesting the importance and selectivity of BTK to B cells. Activation of the B-cell antigen receptor (BCR) signaling pathway contributes to the initiation and maintenance of B-cell malignancies and autoimmune diseases. The Bruton tyrosine kinase (Btk) is specifically required for BCR signaling since mutations disrupt Btk function and prevent B-cell maturation at steps that require a functional BCR pathway. Several lines of evidence suggest that the BCR pathway may provide a survival signal in tumor cells in non-Hodgkin lymphoma (NHL). BTK was recently identified as an essential signaling kinase for survival of a subtype of diffuse large B-cell lymphoma. Thus, small molecule BTK inhibitors may provide therapeutic benefit in the treatment of lymphoma and autoimmune diseases.
Molecular Weight:	79 kDa
NCBI Accession:	NP_000052
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:	Antibodies were tested in ELISA and western blotting applications at 1:500 dilution using ABIN1686581 samples. Antibody dilutions for these antibodies are for reference only, investigators are expected to determine the optimal conditions. Application of this antibody in other protocols has not yet tested. WB: > 1:500 IMM & IP pull-down assays: n.d. IHC: n.d. Investigators using this antibody in protocols other than listed above can request a complimentary sample of this antibody. n.d. not necessarily means the antibody is not suitable for that application, it simply means we have not yet characterized the antibody for that application.

Application Details

Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	For 5 applications, volume varies from 100-200 µL in reduced SDS-PAGE sample buffer.
Storage:	-20 °C
Storage Comment:	-20 °C for long term storage

