

Rabbit Polyclonal BTK antibody FITC

Catalog Number: BTK-FITC

Lot Number:

General Information

Product	BTK Antibody FITC
Description	FITC-Conjugated Bruton's Tyrosine Kinase Antibody
Accession #	Uniprot: Q06187 NCBI: NP_000052.1
Verified Applications	ELISA, IP, WB
Species Cross Reactivity	Human, Monkey, Mouse, Pig
Host	Rabbit
Immunogen	Synthetic peptide taken within amino acid region 550-650 on human BTK protein
Alternative Nomenclature	Agammaglobulinaemia tyrosine kinase antibody, AGMX 1 antibody, AT antibody, ATK antibody, B cell progenitor kinase antibody, BPK antibody, Bruton agammaglobulinemia tyrosine kinase antibody, Bruton's Tyrosine Kinase IMD 1 antibody, PSCTK1 antibody, Tyrosine protein kinase BTK antibody, XLA antibody

Physical Properties

Quantity	100 µg
Volume	200 µl
Form	FITC-Conjugated Immunoglobulins
Immunoglobulin & Concentration	0.66 mg/ml IgG in antibody stabilization buffer
Storage	Store at -20°C for long term storage.

Recommended Dilutions

DOT Blot	1:10,000
ELISA	1:10,000
Immunoprecipitation	1:200
Western Blot	1:500

Related Products

Catalog

Phospho-BTK Antibody	PBTK-140AP
BTK Antibody	BTK-101AP
BIOTIN-Conjugated	BTK-BIOTIN
Antigenic Blocking Peptide	P-BTK
Western Blot Positive Control	PC-BTK

Overview:

Bruton's tyrosine kinase (BTK) is a member of the Tec family kinases with a well-characterized role in BCR-signaling and B-cell activation (1). BTK is activated upstream by Src-family kinases Blk, Lyn, and Fyn, and BTK in turn phosphorylates and activates phospholipase-C γ (PLC γ), leading to Ca²⁺ mobilization and activation of NF- κ B and MAP kinase pathways (2). 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 (1). Activation of the B-cell antigen receptor (BCR) signaling pathway contributes to the initiation and maintenance of B-cell malignancies and autoimmune diseases (1). The Bruton's 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 (2). Thus, small molecule BTK inhibitors may provide therapeutic benefit in the treatment of lymphoma and autoimmune diseases (2).

BTK- selective antibodies were generated against a peptide taken within the human BTK protein spanning amino acid region 550-650. 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. Antigenic blocking peptides (P-BTK) and western blot positive controls (PC-BTK) are available. Antibodies can be conjugated to secondary enzymes or fluorophores upon request at nominal costs. For a complete listing of all FabGennix products and services please visit <http://fabgennix.com>.

References:

1. Sarah E. M. Herman et al. Bruton tyrosine kinase represents a promising therapeutic target for treatment of chronic lymphocytic leukemia and is effectively targeted by PCI-32765. *Blood*. 2011 June 9; 117(23): 6287–6296. Prepublished online 2011 March 21. doi: 10.1182/blood-2011-01-328484
2. Lee A. Honigberg et al. The Bruton tyrosine kinase inhibitor PCI-32765 blocks B-cell activation and is efficacious in models of autoimmune disease and B-cell malignancy. Edited* by Ronald Levy, Stanford University, Stanford, CA, and approved June 16, 2010 (received for review April 6, 2010)

For users who may require large amounts of the products listed above, please inquire about bulk material discounts.

This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.