Datasheet for ABIN968375

anti-BTK antibody (N-Term)

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Overview

Quantity:	150 µg
Target:	BTK
Binding Specificity:	AA 2-172, N-Term
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This BTK antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Human N-Terminal Btk aa. 2-172 Recombinant Protein
Clone:	53-BTK
Isotype:	IgG2a
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Source of all serum proteins is from USDA inspected abattoirs located in the United States. 4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	BTK
Alternative Name:	Btk (BTK Products)
Background:	Bruton's tyrosine kinase (Btk) is a nonreceptor tyrosine kinase whose function is critical for proper B cell development and signaling. It is a member of the Tec family of kinases which includes Tec and Itk. This family is similar to the src family of tyrosine kinases. However, Tec family members lack the N-terminal myristylation site and the regulatory C-terminal tyrosine that are found in src proteins. In addition to an N-terminal pleckstrin homology (PH) domain, the Tec proteins contain Src homology domains 2 and 3 (SH2 and SH3) and a stretch of 60-80 amino acids between the PH and SH3 domains termed the Tec homology domain. The activity of Btk is regulated by Src-mediated phosphorylation of the kinase domain at tyrosine 551. This event induces Btk kinase activity and subsequent autophosphorylation at tyrosine 223 in the SH3 domain. Phosphorylated Btk then associates with the cell membrane via the interaction of the PH domain with phosphatidylinositol 3, 4, 5-triphosphate. The PH domain is essential for proper activation and function of Btk. A mutation in the PH domain results in Xid, murine X-linked immunodeficiency, and human X-linked agammaglobulinemia.
Molecular Weight:	77 kDa
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

Comment:	Related Products: ABIN968584, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

Product cited in:

Shahan, Sorenson, Simpson, Kefalides, Lewis: "Tyrosine kinase activation in response to fungal spores is primarily dependent on endogenous reactive oxygen production in macrophages." in: **The Journal of biological chemistry**, Vol. 275, Issue 14, pp. 10175-81, (2000) (PubMed).

Yang, Malek, Desiderio: "An SH3-binding site conserved in Bruton's tyrosine kinase and related tyrosine kinases mediates specific protein interactions in vitro and in vivo." in: **The Journal of biological chemistry**, Vol. 270, Issue 35, pp. 20832-40, (1995) (PubMed).

Sideras, Müller, Shiels, Jin, Khan, Nilsson, Parkinson, Thomas, Brandén, Larsson: "Genomic organization of mouse and human Bruton's agammaglobulinemia tyrosine kinase (Btk) loci." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 153, Issue 12, pp. 5607-17, (1995) (PubMed).

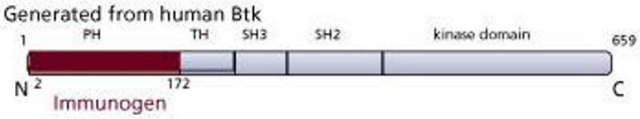
Aoki, Isselbacher, Pillai: "Bruton tyrosine kinase is tyrosine phosphorylated and activated in pre-B lymphocytes and receptor-ligated B cells." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 91, Issue 22, pp. 10606-9, (1994) (PubMed).

Vetrie, Vorechovský, Sideras, Holland, Davies, Flinter, Hammarström, Kinnon, Levinsky, Bobrow: "The gene involved in X-linked agammaglobulinaemia is a member of the src family of protein-tyrosine kinases." in: **Nature**, Vol. 361, Issue 6409, pp. 226-33, (1993) (PubMed).

Western Blotting

Image 1. Western blot analysis of Btk on EB1 lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of anti-Btk.

Image 2.



Western Blotting

Image 3.