

Product Name: Btk (phospho Tyr223) Rabbit Polyclonal Antibody
Catalog #: APRab04335

Summary

Production Name	Btk (phospho Tyr223) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	ELISA,WB,
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	BTK
Alternative Names	BTK; AGMX1; ATK; BPK; Tyrosine-protein kinase BTK; Agammaglobulinaemia tyrosine kinase; ATK; B-cell progenitor kinase; BPK; Bruton tyrosine kinase
Gene ID	695.0
SwissProt ID	Q06187.The antiserum was produced against synthesized peptide derived from human BTK around the phosphorylation site of Tyr223. AA range:188-237

Application

Dilution Ratio	WB 1:500 - 1:2000. ELISA: 1:40000. Not yet tested in other applications.
Molecular Weight	80kD

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Background

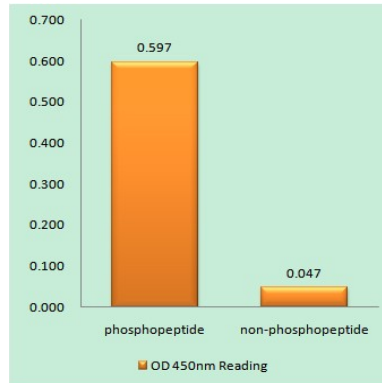
The protein encoded by this gene plays a crucial role in B-cell development. Mutations in this gene cause X-linked agammaglobulinemia type 1, which is an immunodeficiency characterized by the failure to produce mature B lymphocytes, and associated with a failure of Ig heavy chain rearrangement. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Dec 2013],catalytic activity:ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine phosphate.,cofactor:binds 1 zinc ion per subunit.,disease:Defects in BTK are the cause of X-linked agammaglobulinemia (XLA) [MIM:300755]; also called X-linked agammaglobulinemia type 1 (AGMX1) or immunodeficiency type 1 (IMD1). XLA is a humoral immunodeficiency disease which results in developmental defects in the maturation pathway of B-cells. Affected boys have normal levels of pre-B-cells in their bone marrow but virtually no circulating mature B-lymphocytes. This results in a lack of immunoglobulins of all classes and leads to recurrent bacterial infections like otitis, conjunctivitis, dermatitis, sinusitis in the first few years of life, or even some patients present overwhelming sepsis or meningitis, resulting in death in a few hours. Treatment in most cases is by infusion of intravenous immunoglobulin.,disease:Defects in BTK may be the cause of X-linked hypogammaglobulinemia and isolated growth hormone deficiency (XLA-IGHD) [MIM:307200]; also known as agammaglobulinemia and isolated growth hormone deficiency or Fleisher syndrome or isolated growth hormone deficiency type 3 (IGHD3). In rare cases XLA is inherited together with isolated growth hormone deficiency (IGHD).,enzyme regulation:Inhibited by IBTK. Activated by phosphorylation.,function:Plays a crucial role in B-cell ontogeny. Transiently phosphorylates GTF2I on tyrosine residues in response to B-cell receptor cross-linking. Required for the formation of functional ARID3A DNA-binding complexes.,online information:BTK mutation db,PTM:Autophosphorylated on Tyr-223 and Tyr-551. Phosphorylation of Tyr-223 may create a docking site for a SH2 containing protein.,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family.,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family. TEC subfamily.,similarity:Contains 1 Btk-type zinc finger.,similarity:Contains 1 PH domain.,similarity:Contains 1 protein kinase domain.,similarity:Contains 1 SH2 domain.,similarity:Contains 1 SH3 domain.,subunit:binds GTF2I through the PH domain. Interacts with SH3BP5 via the SH3 domain. Interacts with IBTK via its PH domain. Interacts with GTF2I and ARID3A.,

Research Area

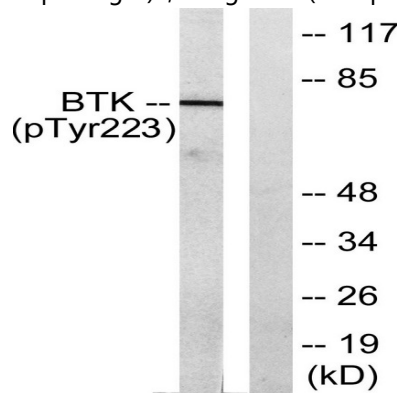
B_Cell_Antigen;Fc epsilon RI;Primary immunodeficiency;

Image Data

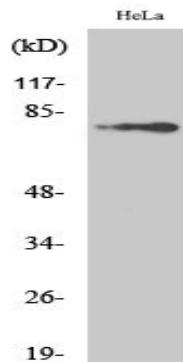
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Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using BTK (Phospho-Tyr223) Antibody



Western blot analysis of lysates from HeLa cells treated with Serum 10% 15', using BTK (Phospho-Tyr223) Antibody. The lane on the right is blocked with the phospho peptide.



Western Blot analysis of various cells using Phospho-Btk (Y223) Polyclonal Antibody

Note

For research use only.