abcam

Product datasheet

Anti-BTK antibody [Y440] ab32555



★★★★★ 1 Abreviews 1 References 3 Images

Overview

Product name Anti-BTK antibody [Y440]

Description Rabbit monoclonal [Y440] to BTK

Host species Rabbit

Tested applications Suitable for: WB. IP

Unsuitable for: Flow Cyt,ICC/IF or IHC

Species reactivity Reacts with: Human

Immunogen Synthetic peptide within Human BTK aa 600-700 (C terminal). The exact sequence is proprietary.

Positive control WB: Daudi cell lysate, K-562 cell lysate, U-937 cell lysate.

General notes We are constantly working hard to ensure we provide our customers with best in class antibodies.

> As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support

team.

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with

these species. Please contact us for more information.

Properties

Form Liquid

Storage instructions Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Storage buffer pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

Purity Protein A purified

Clonality Monoclonal

Clone number Y440
Isotype IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab32555 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★ (1)	1/1000. Predicted molecular weight: 76 kDa.
IP		1/30.

Application notes Is unsuitable for Flow Cyt,ICC/IF or IHC.

Target

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.

Involvement in disease Defects in BTK are the cause of X-linked agammaglobulinemia (XLA) [MIM:300755]; also known

as 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.

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).

Sequence similaritiesBelongs to the protein kinase superfamily. Tyr protein kinase family. TEC subfamily.

Contains 1 Btk-type zinc finger.

Contains 1 PH domain.

Contains 1 protein kinase domain.

Contains 1 SH2 domain. Contains 1 SH3 domain.

Post-translational

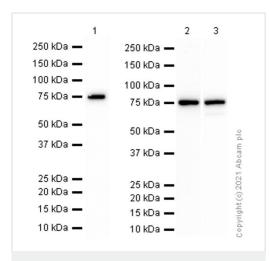
modifications

Autophosphorylated on Tyr-223 and Tyr-551. Phosphorylation of Tyr-223 may create a docking

site for a SH2 containing protein.

Cellular localization Cytoplasm. Membrane. Nucleus.

Images



Western blot - Anti-BTK antibody [Y440] (ab32555)

All lanes : Anti-BTK antibody [Y440] (ab32555) at 1/1000 dilution (Purified)

Lane 1 : Daudi (Human Burkitt's lymphoma lymphoblast) whole cell lysate

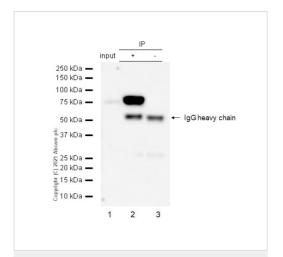
Lane 2 : K-562 (Human chronic myelogenous leukemia lymphoblast) whole cell lysate

Lane 3 : U-937 (Human histiocytic lymphoma monocyte) whole cell lysate

Secondary

All lanes : Goat Anti-Rabbit $\lg G$ H&L (HRP) ($\underline{ab97051}$) at 1/20000 dilution

Predicted band size: 76 kDa **Observed band size:** 75 kDa



Immunoprecipitation - Anti-BTK antibody [Y440] (ab32555)

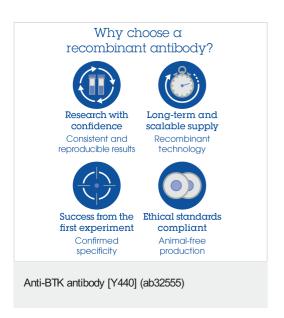
BTK was immunoprecipitated from 0.35 mg Daudi (Human Burkitt's lymphoma lymphoblast) whole cell lysate 10 μ g with ab32555 at 1/50 dilution (2 μ g). VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/5000 dilution.

Lane 1: Daudi (Human Burkitt's lymphoma lymphoblast) whole cell lysate 10 µg

Lane 2: ab32555 IP in Daudi whole cell lysate

Lane 3: Rabbit monoclonal lgG (<u>ab172730</u>) instead of ab32555 in Daudi whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.



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