


Product datasheet

Anti-BTK (phospho Y223) antibody [EP420Y] α b68217

Recombinant RabMAb

★ ★ ★ ★ ★ [1 Abreviews](#) [19 References](#) [5 Images](#)

Overview

Product name	Anti-BTK (phospho Y223) antibody [EP420Y]
Description	Rabbit monoclonal [EP420Y] to BTK (phospho Y223)
Host species	Rabbit
Tested applications	Suitable for: WB, IP, Dot blot Unsuitable for: ICC/IF or IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. (Peptide available as ab214589)
Positive control	WB: K562 and Ramos cell lysates treated with pervanadate. IP: Ramos cell lysates treated with pervanadate. Dot Blot: BTK (phospho Y223) phospho peptide.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - 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 .

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 50% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EP420Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab68217 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

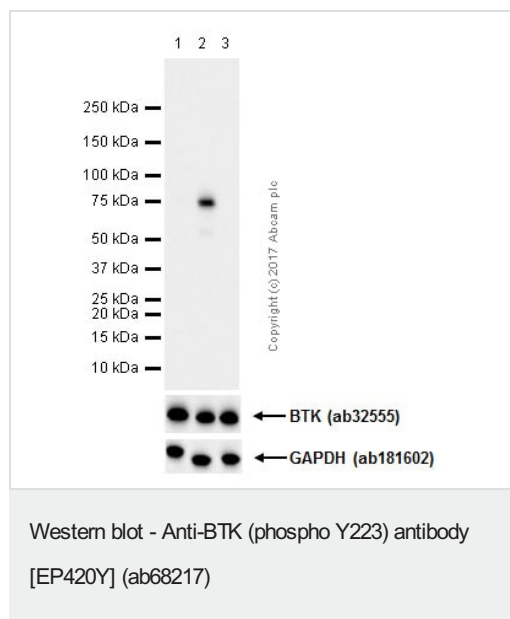
Application	Abreviews	Notes
WB		1/2000 - 1/10000. Detects a band of approximately 76 kDa (predicted molecular weight: 76 kDa). Can be blocked with BTK peptide (ab214589) . For unpurified, use 1/10000 - 1/50000.
IP		1/20. For unpurified, use 1/40.
Dot blot		Use at an assay dependent concentration.

Application notes Is unsuitable for ICC/IF or IHC-P.

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 similarities	Belongs 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



All lanes : Anti-BTK (phospho Y223) antibody [EP420Y] (ab68217) at 1/1000 dilution

Lane 1 : Ramos (human Burkitt's lymphoma B lymphocyte) whole cell lysate

Lane 2 : Ramos treated with 1mM pervanadate for 30 min whole cell lysate

Lane 3 : Ramos treated with 1mM pervanadate for 30 min whole cell lysate. Then the membrane was incubated with alkaline phosphatase.

Lysates/proteins at 10 µg per lane.

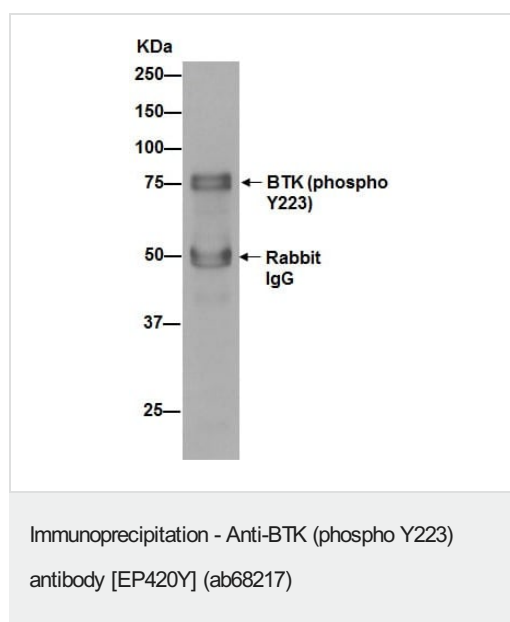
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 76 kDa

Observed band size: 76 kDa

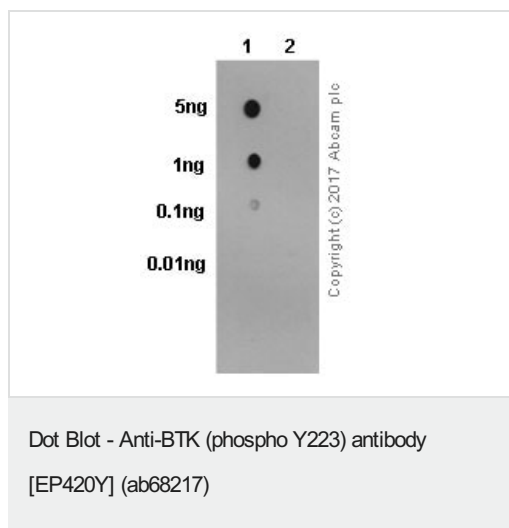
Blocking and dilution buffer: 5% NFDM/TBST.



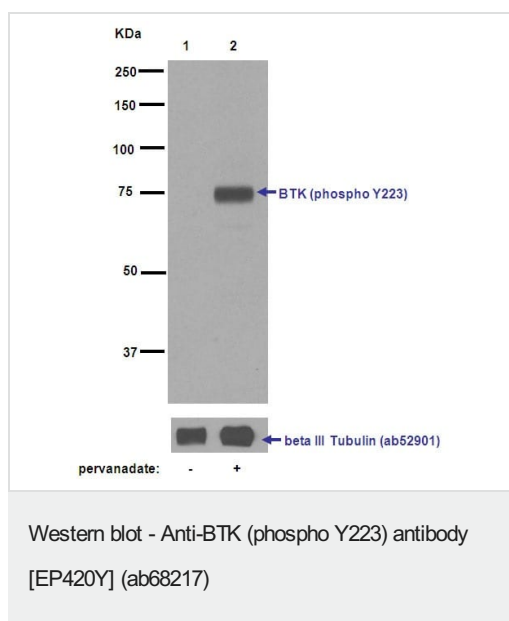
ab68217 (purified) at 1/50 immunoprecipitating BTK (phospho Y223) in Ramos cells (Lane 1) treated with 1 mM Pervanadate for 30 min. For western blotting, a HRP-conjugated anti-rabbit IgG (H+L) was used as the secondary antibody (1/1000).

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.



Dot blot analysis of BTK (phospho Y223) phospho peptide (Lane 1) and BTK phospho peptide (Lane 2) labeling BTK (phospho Y223) with ab68217 at a dilution of 1/1000. A Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) was used as the secondary antibody at a dilution of 1/20,000. Blocking buffer: 5% NFDM/TBST. Dilution buffer: 5% NFDM /TBST.



All lanes : Anti-BTK (phospho Y223) antibody [EP420Y] (ab68217) at 1/10000 dilution (purified)

Lane 1 : Untreated K562 cell lysate

Lane 2 : K562 cells treated with pervanadate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 76 kDa

Observed band size: 76 kDa

Why choose a recombinant antibody?

Research with confidence
Consistent and reproducible results

Long-term and scalable supply
Recombinant technology

Success from the first experiment
Confirmed specificity

Ethical standards compliant
Animal-free production

Anti-BTK (phospho Y223) antibody [EP420Y] (ab68217)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors