

Datasheet for 600-401-Z96**BTK Antibody****Overview**

Description:	Anti-BTK (RABBIT) Antibody - 600-401-Z96
Item No.:	600-401-Z96
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse
Host Species:	Rabbit

Product Details

Background:	Bruton's tyrosine kinase (BTK) was initially identified as a member of the src family for protein-tyrosine kinases that was involved in X-linked agammaglobulinaemia, and has since been shown to be involved in a number of signaling pathways in hematopoietic lineage. It has recently been shown to interact with members of the toll-like receptor (TLR) family such as TLR4, 6, 8, and 9. The TLRs are critical molecules in both the innate and adaptive immunity and can recognize diverse microbial pathogens. BTK has also been shown to interact with key proteins involved in TLR4 signal transduction such as MyD88, TIRAP, and IRAK, but not TRAF-6, suggesting that BTK is involved in lipopolysaccharide signal transduction.
Synonyms:	BTK Antibody, AT, ATK, BPK, XLA, IMD1, AGMX1, PSCTK1, Tyrosine-protein kinase BTK, Agammaglobulinemia tyrosine kinase
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	BTK
Reactivity:	Human, Mouse
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-BTK antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to 16 amino acids near the amino-terminus of human BTK.
Purity/Specificity:	Anti-BTK Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with BTK from other sources has not been determined.
Relevant Links:	• UniProtKB - Q06187 • GeneID - 695 • NCBI - NP_000052.1

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-BTK Antibody has been tested for use in ELISA, Western Blotting, Immunocytochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 76 kDa in Western Blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5000-1:20,000
IF:	10 µg/mL
IHC:	10 µg/mL
WB:	0.5-2 µg/mL

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

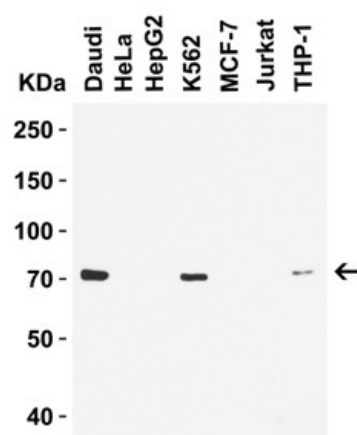
Shipping & Handling

Shipping Condition:	Dry Ice
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Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

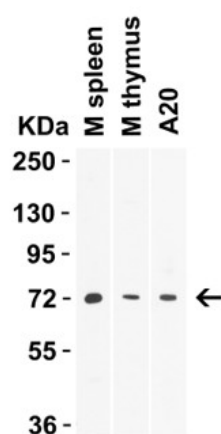
Expiration: Expiration date is one (1) year from date of receipt.

Images



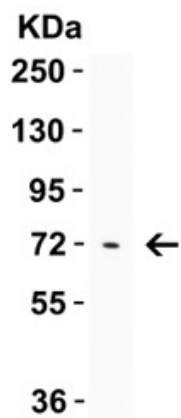
Western Blot

WB Validation. Loading: 15 µg of human cell line lysates. Antibodies: BTK, 0.5 µg/mL, 1 h incubation at RT in 5% NFDm/TBST. Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



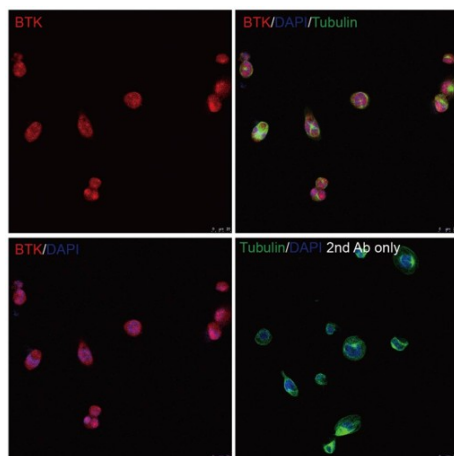
Western Blot

WB Validation. Loading: 15 µg of mouse tissue and cell lysates. Antibodies: BTK, 0.5 µg/mL, 1 h incubation at RT in 5% NFDm/TBST. Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



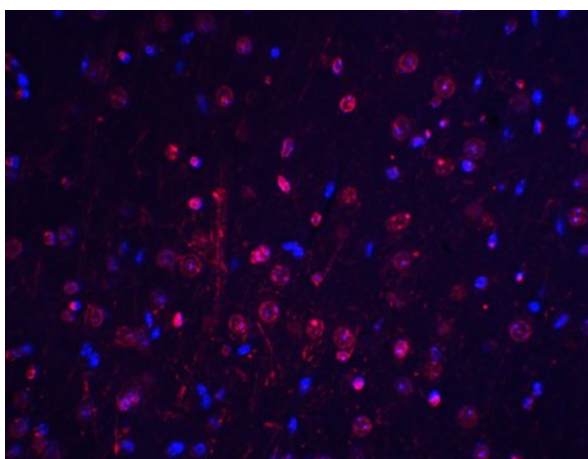
Western Blot

WB Validation. Loading: 15 µg of rat spleen lysate.
 Antibodies: BTK, 0.5 µg/mL, 1 h incubation at RT in 5%
 NFDM/TBST. Secondary: Goat Anti-Rabbit IgG HRP conjugate
 at 1:10000 dilution.



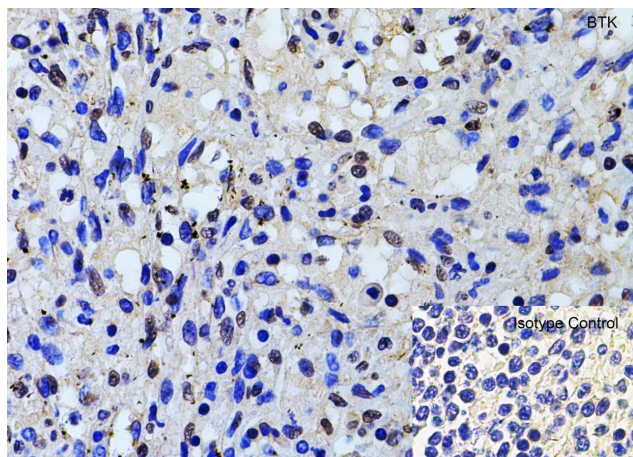
Immunofluorescence Microscopy

Immunofluorescence Validation of BTK. Immunofluorescent
 analysis of PFA-fixed THP-1 cells labeling BTK at 20 µg/mL,
 followed by goat anti-rabbit IgG secondary antibody at
 1/1000 dilution (red) and Hoechst staining (blue). Alpha
 tubulin was stained with anti-alpha tubulin antibody
 following by goat anti-mouse IgG secondary antibody
 (green). Images were captured with confocal microscopy.



Immunofluorescence Microscopy

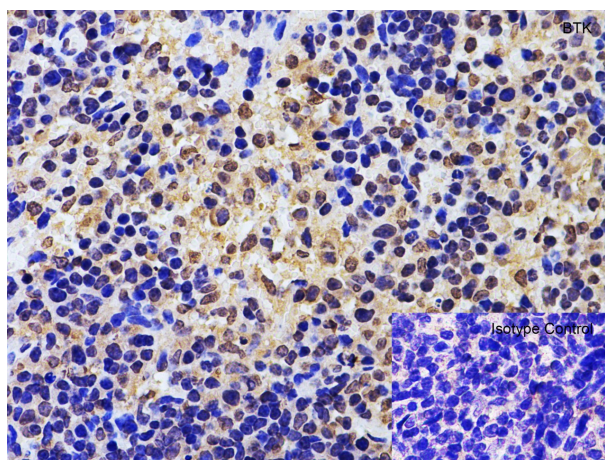
Immunofluorescence Validation of BTK. Immunofluorescent
 analysis of 4% paraformaldehyde-fixed mouse brain tissue
 labeling BTK at 20 µg/mL, followed by goat anti-rabbit IgG
 secondary antibody at 1/500 dilution (red) and DAPI staining
 (blue).



Immunohistochemistry

Immunohistochemistry Validation of BTK.

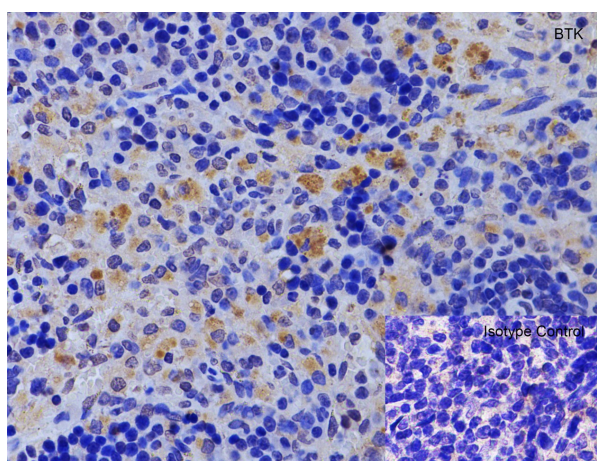
Immunohistochemical analysis of paraffin-embedded human spleen tissue using anti-BTK antibody at 2 µg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Immunohistochemistry

Immunohistochemistry Validation of BTK.

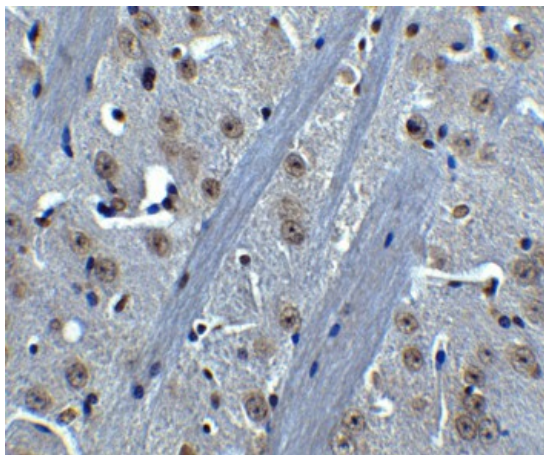
Immunohistochemical analysis of paraffin-embedded mouse spleen tissue using anti-BTK antibody at 2 µg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Immunohistochemistry

Immunohistochemistry Validation of BTK.

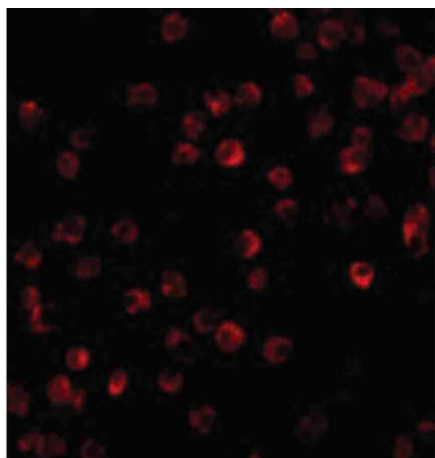
Immunohistochemical analysis of paraffin-embedded rat spleen tissue using anti-BTK antibody at 2 µg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Immunohistochemistry

Immunohistochemistry Validation of BTK.

Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-BTK antibody at 5 µg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Immunofluorescence Microscopy

Immunofluorescence Microscopy of BTK antibody. Cell

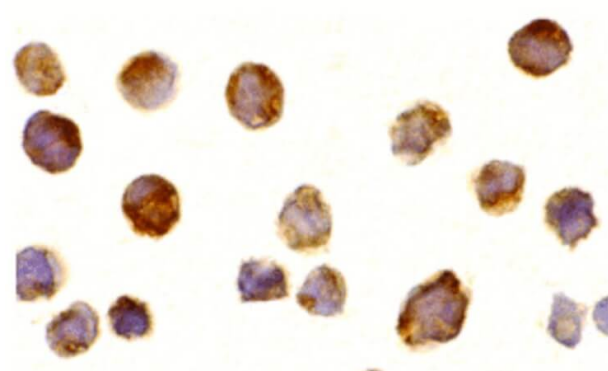
Type: Daudi cells. Fixation: 0.5% PFA. Antigen retrieval:

not required. Primary antibody: BTK antibody at 10 µg/ml

for 1 h at RT. Secondary antibody: Fluorescein rabbit

secondary antibody at 1:10,000 for 45 min at RT.

Localization: BTK is located in the cell membrane, cytoplasm, and the nucleus. Staining: BTK as red fluorescent signal.



Immunohistochemistry

Immunocytochemistry of BTK antibody. Cell Type: Daudi

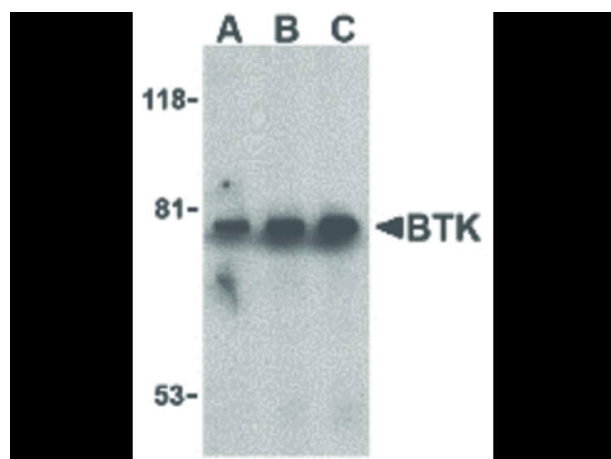
cells. Fixation: formalin fixed paraffin embedded. Antigen

retrieval: not required. Primary antibody: BTK antibody at

10 µg/mL for 1 h at RT. Secondary antibody: Peroxidase

rabbit secondary antibody at 1:10,000 for 45 min at RT.

Localization: BTK is located in the cell membrane, cytoplasm, and the nucleus. Staining: BTK is stained brown with hematoxylin purple counterstain.



Western Blot

Western Blot of BTK antibody in U937 cell lysate. Lane A: BTK antibody at 0.5 $\mu\text{g/mL}$. Lane B: BTK antibody at 1 $\mu\text{g/mL}$. Lane C: BTK antibody at 2 $\mu\text{g/mL}$. Load: 35 μg per lane. Primary antibody: BTK antibody at designated concentrations for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 76 kDa, 78 kDa for BTK. Other band(s): BTK splice variants and isoforms.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.