

Anti-BTK Antibody (1C304)

Product Details

Ig Type:	IgG
Reactivity:	Human
Molecular Weight:	Theoretical: 76 kDa. Actual: 74 kDa.
Clone:	1C304
Purification:	Protein A purified

Applications

Verified Activity:	<p>1. 25 µg total protein per lane of various lysates (see on figure) probed with BTK monoclonal antibody, unconjugated (TMAB-03248) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r. T. for 60 min.</p> <p>2. 4% Paraformaldehyde-fixed Raji (H) cell; Antibody incubation with (ATK/BTK) monoclonal Antibody, unconjugated (TMAB-03248) 1:100, 90 min at 37°C; followed by conjugated Goat Anti-Rabbit IgG antibody (green) at 37°C for 90 min, DAPI (blue) was used to stain the cell nuclei. PBS instead of the primary antibody was used as the blank control.</p> <p>3. The Raji (H) cells were incubated in 5% BSA to block non-specific protein-protein interactions (30 min at r. T.). Primary Antibody (green): Rabbit Anti-ATK/BTK antibody (TMAB-03248): 1 µg/10⁶ cells; Secondary Antibody (white blue): Goat anti-Rabbit IgG-FITC: 1 µg/test. Blank control (black): PBS. Acquisition of 20,000 events was performed.</p>
Application:	WB, ICC/IF, FCM
Recommended	WB: 1:500-1000; ICC/IF: 1:50-200; FCM: 1µg/Test

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthesized peptide: human BTK
Antigen Species:	Human
Gene ID:	695
Uniprot ID:	Q06187

Research Background

Bruton's tyrosine kinase (BTK) is a member of the BTK/Tec family of cytoplasmic tyrosine kinases. Like other BTK family members, it contains a pleckstrin homology (PH) domain, Src homology SH3 and SH2 domains. BTK plays an important role in B cell development. Activation of B cells by various ligands is accompanied by BTK membrane translocation mediated by its PH domain binding to phosphatidylinositol-3,4,5-trisphosphate. The membrane located BTK is active and associated with transient phosphorylation of two tyrosine residues, Tyr551 and Tyr223. Tyr551 in the activation loop is transphosphorylated by the Src family tyrosine kinase, leading to autophosphorylation at Tyr223 within the SH3 domain, which is necessary for full activation. The activation of BTK is

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negatively regulated by PKC beta through phosphorylation of BTK at Ser180, which results in reduced membrane recruitment, transphosphorylation and subsequent activation. The PKC/BTK inhibitory signal is likely to be a key determinant of the B cell receptor signaling threshold to maintain optimal BTK activity.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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