

## Recombinant Phospho-BTK (Tyr551) Monoclonal Antibody

catalog number: **AN302103L**

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

### Description

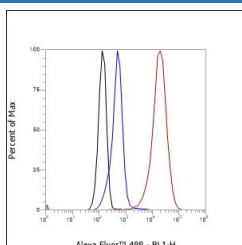
<b>Reactivity</b>	Human;
<b>Immunogen</b>	Peptide. This information is proprietary to PTMab
<b>Host</b>	Rabbit
<b>Isotype</b>	IgG, $\kappa$
<b>Clone</b>	A827
<b>Purification</b>	Protein A purified
<b>Buffer</b>	PBS, 50% glycerol, 0.05% Proclin 300, 0.05% protein protectant.

### Applications

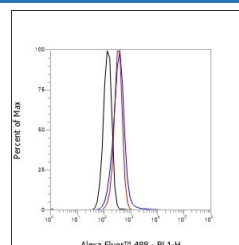
### Recommended Dilution

<b>FCM</b>	1:100
------------	-------

### Data



Flow cytometric analysis of human Phospho-BTK (Tyr551) expression on Ramos+pervanadate(1mM 30min) cells. Cells were stained with purified anti-Human Phospho-BTK (Tyr551), then a Alexa Fluor 488-conjugated second step antibody. The histogram were derived from events with the forward and side light-scatter characteristics of intact cells.



Flow cytometric analysis of human Phospho-BTK (Tyr551) expression on Ramos(Negative cell line) cells. Cells were stained with purified anti-Human Phospho-BTK (Tyr551), then a Alexa Fluor 488-conjugated second step antibody. The histogram were derived from events with the forward and side light-scatter characteristics of intact cells.

### Preparation & Storage

<b>Storage</b>	Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles.
<b>Shipping</b>	Ice bag

### 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 apleckstrin homology (PH) domain and 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-localized 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 kinases, leading to autophosphorylation at Tyr223 within the SH3 domain, which is necessary for full activation. The activation of Btk is negatively regulated by PKC $\beta$  through phosphorylation of Btk at Ser180, which results in reduced membrane recruitment, transphosphorylation, and subsequent activation. The PKC inhibitory signal is likely to be a key determinant of the B cell receptor signaling threshold to maintain optimal Btk activity.

### For Research Use Only

Toll-free: 1-888-852-8623  
Web: [www.elabscience.com](http://www.elabscience.com)

Tel: 1-832-243-6086  
Email: [techsupport@elabscience.com](mailto:techsupport@elabscience.com)

Fax: 1-832-243-6017

Rev. V1.0