Phospho-Btk (Tyr551) (G12) rabbit mAb

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Catalog: #2341 **Store at:** -20ºC

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Detection	Clonality	Isotype
Flow Cytometry,ELISA	Anti-Rabbit IgG	Monoclonal	Rabbit IgGk

Format: Unconjugated

Cross Reactivity: Predicted to work with mouse, rat and other homologues.

Formulation: 1X PBS, 0.02% NaN3, 50% Glycerol, 0.1% BSA

Preparation: Protein A+G

Reactivity: Human

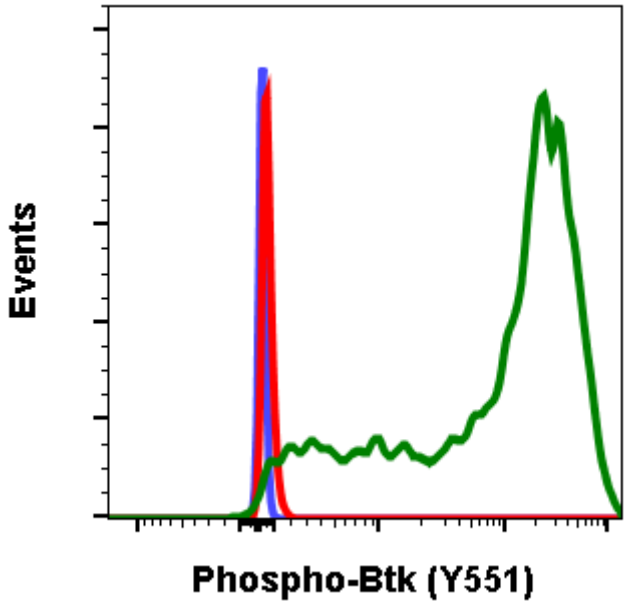
Recommended Usage: 1µg/mL – 0.001µg/mL. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.

Immunogen: A synthetic phospho-peptide corresponding to residues surrounding Tyr551 of human phospho Btk

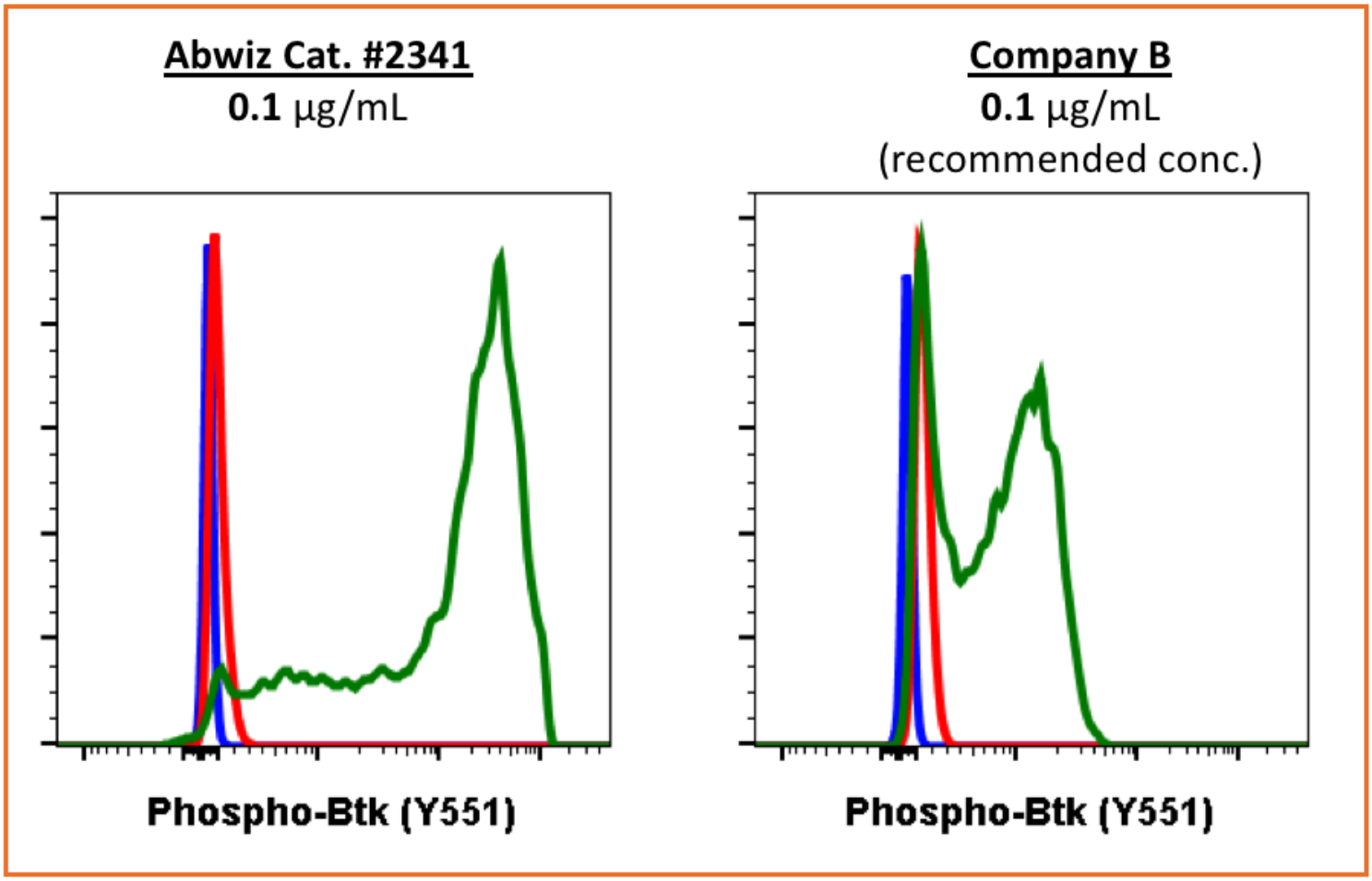
Description: Btk is a major node in the B-cell receptor signaling pathway, where it regulates B cell maturation, activation, survival, differentiation, and proliferation. Btk is activated by Src family kinases, including Lyn, which phosphorylates Btk at Tyr551. Upon phosphorylation at this site, Btk is recruited to the plasma membrane where autophosphorylation at Tyr223 occurs. The Btk signaling pathway is a major target of small molecule inhibitors for B-cell lymphoma, autoimmune diseases, and non-Hodgkin's lymphomas. These inhibitors either form a covalent bond at Cys481 in the ATP-binding site or serve as reversible inhibitors that bind the SH3 pocket and stabilize inactive Btk.

References:

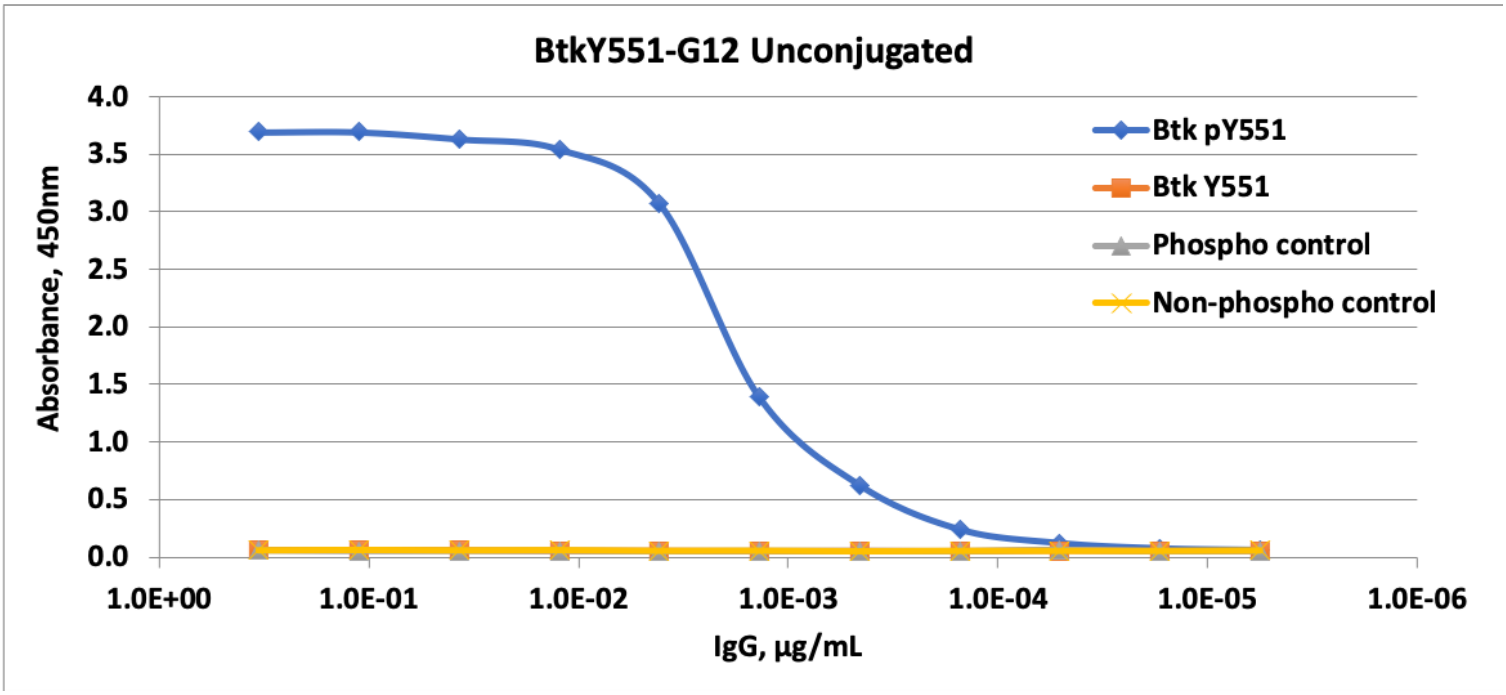
Liang, C, Tian D, Ren X, et al. (2018) European Journal of Medicinal Chemistry. 151: 315-326.



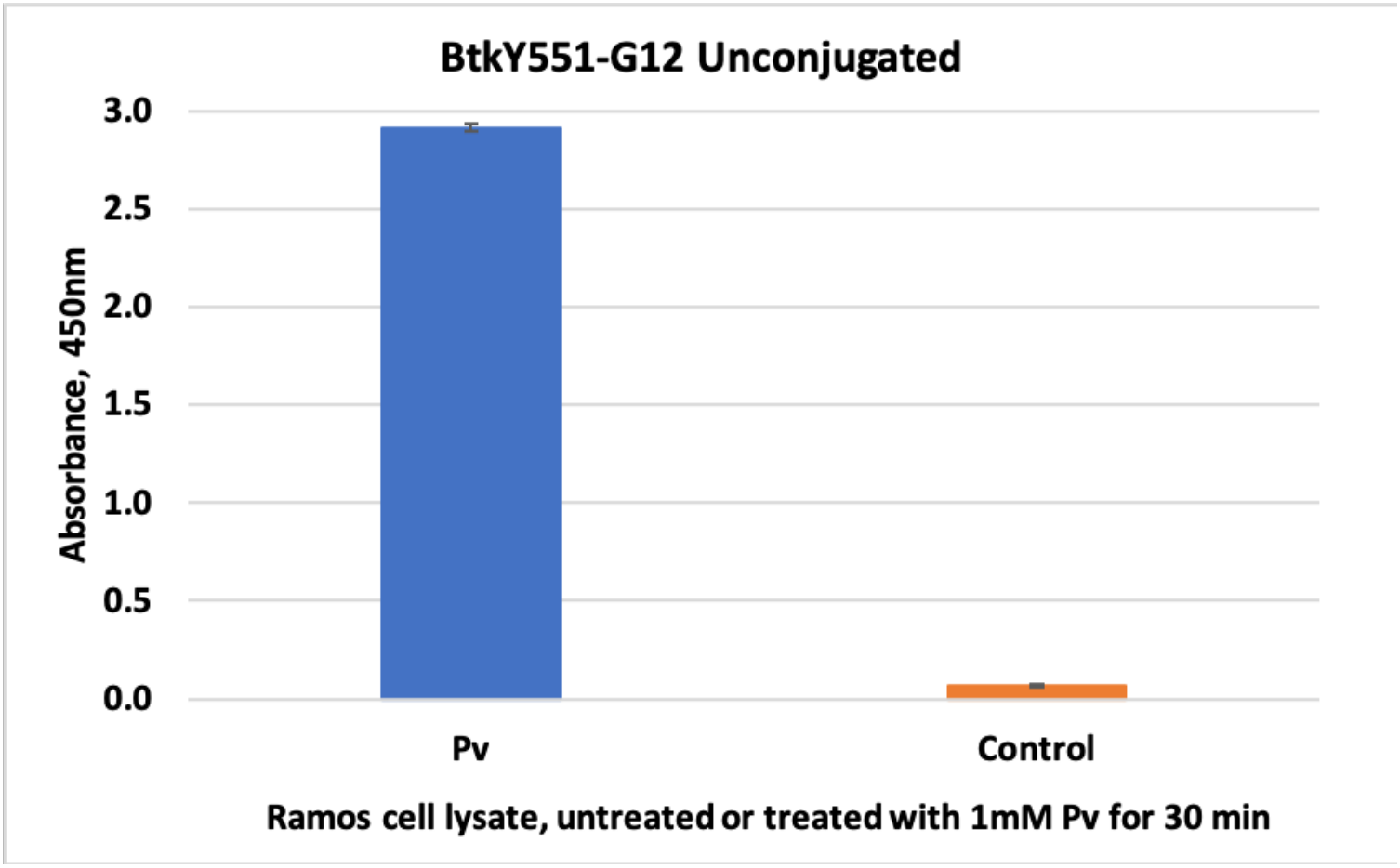
Flow cytometric analysis of Ramos cells secondary antibody only negative control (blue) or untreated (red) or treated with pervanadate (green) using Phospho-Btk (Tyr551) antibody BtkY551-G12 at 0.1 µg/mL. Cat. #2341.



Flow cytometric analysis of Ramos cells secondary antibody only negative control (blue) or treated with imatinib (red) or with pervanadate (green) using Phospho-Btk (Y551) antibody BtkY551-G12 (Abwiz Cat. #2341) or Company B antibody at 0.1 µg/mL (manufacturer's recommended concentration).



Peptide ELISA using BtkY551-G12 (Cat. #2341) titered starting from 0.3 ug/mL shows binding to only Btk pY551 phospho peptide and no cross-reactivity to Btk Y551 non-phospho peptide or to control peptides.



Direct ELISA using Ramos cellular lysate coated directly to the plate surface after lysis following no treatment or treatment with 1mM pervanadate for 30 min. ELISA wells were tested in duplicate using 0.25 mg/mL total protein coated lysate and 1 ug/mL BtkY551-G12 (Cat. #2341) IgG.