Technical Data Sheet

Purified Mouse anti-Btk (pY551)/ltk (pY511)

Product Information

 Catalog Number:
 558034

 Size:
 0.1 mg

 Concentration:
 0.5 mg/ml

 Clone:
 24a/BTK (Y551)

Immunogen: Phosphorylated Human Btk

Isotype:Mouse IgG1 κTarget Molecular Weight for WB/IP:77 kDa

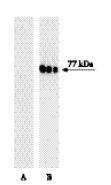
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

Bruton's tyrosine kinase (Btk) is a nonreceptor tyrosine kinase whose function is critical for proper B cell development and signaling. The activity of Btk is regulated by Src mediated phosphorylation of the kinase domain at tyrosine 551 (Y551). This event induces Btk kinase activity and subsequent autophosphorylation at Y223. Phosphorylated Btk then associates with the cell membrane via the interaction of the PH domain with phosphatidylinositol 3, 4, 5-triphosphate.

The Tec family kinase Itk plays a critical role in signal transduction downstream of the T cell antigen receptor and has been implicated in the activation of phospholipase $C-\gamma 1$ (PLC $\gamma 1$), a key regulator of calcium mobilization and extracellular signal-regulated kinase (ERK) activation. Itk is regulated by an activating transphosphorylation event in which Y511 in the kinase domain is phosphorylated by Lck

The 24a/BTK (Y551) monoclonal antibody recognizes the Y551-phosphorylated form of human Btk and the Y511 phosphorylated form of human Itk.



Western blot analysis of Btk (pY551) in human Burkitt's lymphoma. Lysates from control (panel A) and pervanadate-treated (panel B) Raji cells (ATCC CCL-86) were probed with Purified Mouse anti-Btk (pY551)/tk (pY511) monoclonal antibody at concentrations of 0. 5, 0.25, and 0.125 µg/ml. Btk (pY551) is identified as a band of about 77 kDa in

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4° C.

Application Notes

Application

Western blot Routinely Tested	

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Igs	1.0 ml	(none)

Product Notices

1. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

BD Biosciences

bdbiosciences.com

 United States
 Canada
 Europe
 Japan
 Asia Pacific
 Latin America/Caribbean

 877.232.8995
 888.259.0187
 32.53.720.550
 0120.8555.90
 65.6861.0633
 55.11.5185.9995

For country-specific contact information, visit bdbiosciences.com/how_to_order/

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

For Research Use Only, Not for use in diagnostic or therapeutic procedures. Not for resale.

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2006 BD 558034 Rev. 2



- 2. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
- 3. Since applications vary, each investigator should titrate the reagent to obtain optimal results.

References

Mahajan S, Fargnoli J, Burkhardt AL, Kut SA, Saouaf SJ, Bolen JB. Src family protein tyrosine kinases induce autoactivation of Bruton's tyrosine kinase. *Mol Cell Biol.* 1995; 15:5304-5311. (Biology)

Rawlings DJ, Scharenberg AM, Park H, et al. Activation of BTK by a phosphorylation mechanism initiated by SRC family kinases. Science. 1996; 271:822-825. (Biology)

Wilcox HM, Berg LJ.. Itk phosphorylation sites are required for functional activity in primary T cells. J Biol Chem. 2003; 278:37112-37121. (Biology)