Human BTK Antibody

Monoclonal Mouse IgG_1 Clone # 566928

Catalog Number: MAB5807

DESCRIPTION

Species Reactivity	Human
Specificity	Detects endogenous human BTK in Western blots.
Source	Monoclonal Mouse IgG_1 Clone # 566928
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human BTK Glu280-Val377 Accession # Q06187
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

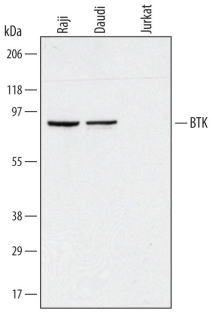
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.05 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below

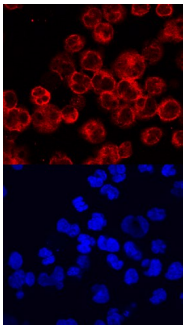
DATA

Western Blot



Detection of Human BTK by Western Blot. Western blot shows lysates of Raji human Burkitt's lymphoma cell line and Daudi human Burkitt's lymphoma cell line (BTK positive) and Jurkat human acute T cell leukemia cell line (BTK negative). PVDF membrane was probed with 0.05 µg/mL of Human BTK Monoclonal Antibody (Catalog # MAB5807) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for BTK at approximately 90 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



BTK in Raji Human Cell Line. BTK was detected in immersion fixed Raji human Burkitt's lymphoma cell line using Mouse Anti-Human BTK Monoclonal Antibody (Catalog # MAB5807) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red, upper panel; Catalog # NL007) and counterstained with DAPI (blue, lower panel). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Bruton tyrosine kinase (BTK) is a 75 kDa cytoplasmic protein tyrosine kinase that is widely expressed in hematopoietic cells. BTK is required for B cell receptor signaling and B cell development. Defects in BTK result in X-linked agammaglobulinemia which is characterized by a severely decreased level of circulating antibodies. Like other Tec family kinases, BTK contains a Pleckstrin homology domain, a Tec homology domain, an SH3 domain, an SH2 domain, and a protein kinase domain. Association of the BTK SH2 domain with the B cell linker protein (BLNK) is required for the activation of PLCγ by BTK. Within the SH2 domain (aa 280-377), human BTK shares 99% aa sequence identity with mouse and rat BTK.

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