Catalog No. LF-MA0191

MONOCLONAL ANTIBODY

Anti- Bruton's Tyrosine Kinase(Btk) (1A1)

Background : Btk (Bruton's tyrosine kinase) is a member of the Tec family of protein tyrosine kinases (PTKs) and plays a modulatory role in many cellular processes, such as proliferation, development, differentiation, survival, and apoptosis. The Tec kinases are the second largest family of non-receptor tyrosine kinases and include Tec, Btk, Bmx, Itk, and TXK/Rlk. Mutations of Btk gene cause a primary immunodeficiency disease in humans, X-linked agammaglobulinemia (XLA) which is characterized by a lack of circulating B lymphocytes and an absence of immunoglobulins as a result of defects in B cell maturation and function. Btk is found in all hematopoietic cells, with the exception of T lymphocytes and plasma cells. Btk contains amino-terminal PH (pleckstrin homology) domain which binds phosphatidylinositol (3,4,5)-trisphosphate (PIP3) helping membrane translocation upon PI3 kinase activation. The Tec kinases have similar structure of N-terminal PH domains followed by Tec homology (TH), Src homology 3 (SH3), Src homology 2 (SH2), and kinase domains. Autophosphorylation of Tyr223 in SH3 domain is necessary for full activation of Btk. Various binding proteins have been reported to interact with different domains of Btk.

Immunogen : Recombinant human protein purified from *E.coli* (His/ABD-Btk)

Host : Mouse

Clone number : 1A1

Isotype : IgG1, k

Size : 100 ㎕

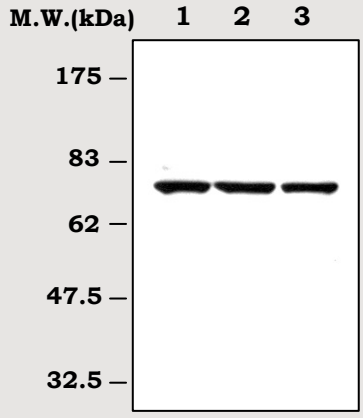
Compositon : Hepes with 0.15 M NaCl, 0.01% BSA, 0.03% sodium azide, and 50% glycerol

Positive control : A431 cell lysate

Storage : Store for 1 year at –20℃ from date of shipment

Species cross reactivity

Human	Mouse	Rat
+	-	-



Immunoblot Analysis of cell lysates
Lane 1 : U937 cell lysate
Lane 2 : Raji cell lysate
Lane 3 : HL60 cell lysate

Applications :
ELISA
Western blotting (1: 5,000)

Background Reference :
1) Lindvall J.M. et al., 2005, Immunol Rev. 203:200-215
2) Jefferies C.A. and O'Neill L.A., 2004, Immunol Lett. 92:15-22
3) Smith C.I. et al., 2001, Bioessays, 23:436-446
4) Schaeffer E.M. and Schwartzberg P.L., 2000, Curr Opin Immunol. 12:282-288

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