bsm-52136R **[Primary Antibody]**

Phospho-BTK (Tyr223) Recombinant Rabbit mAb

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DATASHEET

Host: Rabbit
Isotype: IgG
Clonality: Recombinant
CloneNo.: 7B2
GeneID: 695
SWISS: Q06187
Target: Phospho-BTK (Tyr223)
Immunogen: KLH conjugated Synthesised phosphopeptide derived from human Btk around the phosphorylation site of Tyr223: AL(p-Y)DY.
Purification: affinity purified by Protein A
Concentration: 1mg/ml
Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Background: Brutons tyrosine kinase (BTK) is a member of the BTK/Tec family of cytoplasmic tyrosine kinases. Like other BTK family members, it contains a pleckstrin homology (PH) domain, 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 located 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 kinase, 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/BTK inhibitory signal is likely to be a key determinant of the B cell receptor signaling threshold to maintain optimal BTK activity.

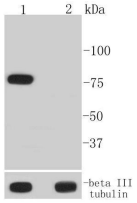
Applications: **WB** (1:1000-2000)
IHC-P (1:100-500)
IHC-F (1:50-200)
IF (1:50-200)
ICC/IF (1:50-200)

Reactivity: Human (predicted: Mouse, Rat)

Predicted MW.: 76 kDa

Subcellular Location: Cell membrane ,Cytoplasm ,Nucleus

VALIDATION IMAGES



Western blot analysis of Phospho-BTK(Y223) on different lysates using anti-Phospho-BTK(Y223) antibody at 1/1,000 dilution. Positive control:
Lane 1: K562 cells treated with pervanadate
Lane 2: Untreated K562 cell lysate

SELECTED CITATIONS

- **[IF=4.087]** Tong Chen. et al. The effect of geniposide on chronic unpredictable mild stress‐induced depressive mice through BTK/TLR4/NF‐κB and BDNF/TrkB signaling pathways. Phytother Res. 2021 Feb;35(2):932-945 WB ;Mouse. 33164233