

BTK recombinant protein

Recombinant BTK protein

CATALOG #
AAA60127

HOST
Baculovirus

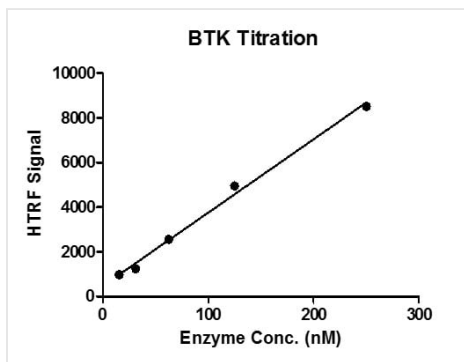
PRODUCT SYNONYMS

BTK; Recombinant BTK protein; Bruton Tyrosine Kinase; Bruton Agammaglobulinemia Tyrosine Kinase; AGMX1; ATK; BTK recombinant protein

PRODUCT SPECIFICATIONS

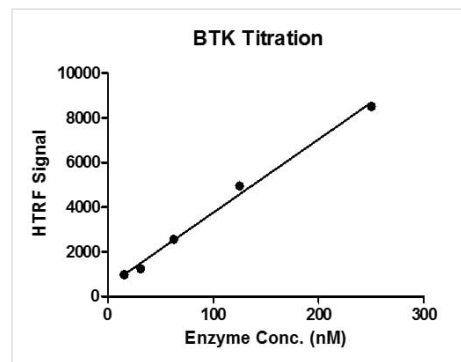
Host	Baculovirus
Form/Format	Recombinant BTK protein is in 25mM HEPES-NaOH pH7.5, 300mM NaCl, 10% glycerol, 0.04% Triton X-100 and 0.5mM TCEP.
Protein Species	Human
Tag	DYKDDDDK-Tag
Notes	Recombinant BTK protein is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. Shipping Temp: Dry Ice

IMAGES



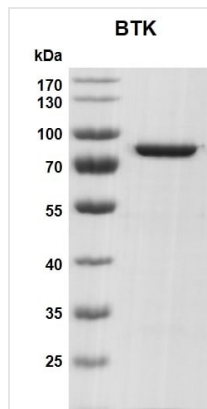
Application Data

HTRF assay for BTK activity 1 uM TK substrate was incubated with different concentrations of BTK protein in a 10 ul reaction system containing 1×Enzymatic Buffer, 5 mM MgCl₂, 1 mM DTT, 5 nM SEB and 100 uM ATP for 1 hour. The detection reagents containing anti-TK antibody and SA-XL665, diluted in 1X Detection Buffer, were added and incubated with the reactions for 30 min. All operations and reactions were performed at room temperature, and HTRF KinASE TK assay was used to detect the enzymatic activity.



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SDS-PAGE

Recombinant BTK protein gel 10% SDS-PAGE Coomassie staining MW: 77.6 kDa Purity: ? 90%

ADDITIONAL INFORMATION

Related Product Information for BTK recombinant protein	Short Description: Recombinant human BTK protein was expressed in a baculovirus expression system as the full-length protein (accession number NP_000052.1) with an N-terminal DYKDDDDK tag. The molecular weight of the protein is 77.6 kDa. Recombinant BTK protein is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. Background: BTK (Bruton Tyrosine Kinase), also known as B-Cell Progenitor Kinase, EC 2.7.10.2, AGMX1, ATK, BPK, is a non-receptor tyrosine kinase indispensable for B lymphocyte development, differentiation and signaling. It acts as a platform to bring together a diverse array of signaling proteins and is implicated in cytokine receptor signaling pathways.. Binding of antigen to the B-cell antigen receptor (BCR) triggers signaling that ultimately leads to B-cell activation. After BCR engagement and activation at the plasma membrane, BTK can phosphorylate PLCG2 at several sites, igniting the downstream signaling pathway through calcium mobilization, followed by activation of the protein kinase C (PKC) family members. It also plays an important role in the function of immune cells of innate as well as adaptive immunity, as a component of the Toll-like receptors (TLR) pathway. BTK can be activated by phosphorylation. In primary B lymphocytes, it is almost always non-phosphorylated and is thus catalytically inactive. Stimulation of TLR8 and TLR9 causes BTK activation. As a negative feedback mechanism to fine-tune BCR signaling, activated PRKCB down-modulates BTK function via direct phosphorylation of BTK at Ser-180, resulting in translocation of BTK back to the cytoplasmic fraction. PIN1, SH3BP5, and IBTK were also identified as BTK activity inhibitors. Interaction with CAV1 leads to dramatic down-regulation of the kinase activity of BTK. LFM-13A is a specific inhibitor of BTK.
Product Categories/Family for BTK recombinant protein	Recombinant Proteins ; Kinase

NCBI AND UNIPROT INFORMATION

NCBI GI #	4557377
NCBI GeneID	695
NCBI Accession #	NP_000052.1
NCBI GenBank Nucleotide #	NM_000061.2
UniProt Accession #	Q06187 ; Q32ML5
Molecular Weight	80kDa
NCBI Official Full Name	tyrosine-protein kinase BTK
NCBI Official Synonym Full Names	Bruton agammaglobulinemia tyrosine kinase
NCBI Official Symbol	BTK
NCBI Official Synonym Symbols	AT; ATK; BPK; XLA; IMD1; AGMX1; PSCTK1

NCBI Protein Information	tyrosine-protein kinase BTK; B-cell progenitor kinase; agammaglobulinaemia tyrosine kinase; tyrosine-protein kinase BTK isoform (lacking exon 14); dominant-negative kinase-deficient Brutons tyrosine kinase
UniProt Protein Name	Tyrosine-protein kinase BTK
UniProt Gene Name	BTK
UniProt Synonym Gene Names	AGMX1; ATK; BPK; ATK; BPK
UniProt Entry Name	BTK_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/btk-recombinant-protein-baculovirus/60127>