

Recombinant Human Bruton Tyrosine Kinase/BTK Kinase Protein (His Tag)

Catalog No. PKSH030407

Note: Centrifuge before opening to ensure complete recovery of vial contents.

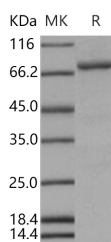
Description

Synonyms	AGMX1;AT;ATK;BPK;IMD1;PSCTK1;XLA
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 1-Ser 659
Accession	NP_000052.1
Calculated Molecular Weight	77.8 kDa
Tag	C-His
Bioactivity	The specific activity was determined to be 115 nmol/min/mg using Poly(Glu, Tyr)4:1 peptide as substrate.

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.
Formulation	Supplied as sterile solution of 20mM Tris, 500mM NaCl, 10% glycerol, pH 7.0
Reconstitution	Not Applicable

Data



> 85 % as determined by reducing SDS-PAGE.

Background

Bruton's tyrosine kinase (or BTK) is a type of kinase protein expressed in B lymphocytes and T cells. BTK contains a PH domain which binds phosphatidylinositol(3,4,5)-trisphosphate (PIP3). After binding to PIP3, BTK is induced to phosphorylate phospholipase C, which in turn hydrolyzes PIP2 into two second messengers, IP3 and DAG, which then modulate the activity of downstream proteins during B-cell signaling. Btk is also found implicated in the primary immunodeficiency disease X-linked agammaglobulinemia(Bruton's agammaglobulinemia). BTK played a key role in B-cell maturation as well as mast cell activation through the high-affinity IgE receptor. Patients with X-linked

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agammaglobulinemia have normal pre-B cell populations in their bone marrow but these B-cells can not mature and enter the circulation.