



Recombinant Protein Technical Manual

Recombinant Human Bruton Tyrosine Kinase/BTK Kinase Protein (His Tag)(Active) RPES1832

Product Data:

Product SKU: RPES1832

Size: 20µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: NP_000052.1

Protein Information:

Molecular Mass: 77.8 kDa

AP Molecular Mass:

Tag: C-His

Bio-activity: 1. The specific activity was determined to be 115 nmol/min/mg using Poly(Glu,Tyr)4:1 peptide as substrate. 2. Measured by its ability to bind human BLNK in a functional ELISA.

Purity: > 85 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg 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 20mM Tris, 500mM NaCl, 10% glycerol, pH 7.0

Reconstitution: Please refer to the printed manual for detailed information.

Application: Functional ELISA

Synonyms: AGMX1;AT;ATK;BPK;IMD1;PSCTK1;XLA

Immunogen Information:

Sequence: Met 1-Ser 659

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