

## BTK (R562P), Protein

Full-length human recombinant protein expressed in Sf9 cells

**Catalog # B10-12DH**

Lot # H2931-1P1

### Product Description

Recombinant full-length human BTK (R562P) was expressed by baculovirus in Sf9 insect cells using an N-terminal His tag. The gene accession number is [NM\\_000061](#).

### Gene Aliases

AT; ATK; BPK; XLA; IMD1; AGMX1; PSCTK

### Formulation

Recombinant protein stored in 50mM sodium phosphate, pH 7.0, 300mM NaCl, 150mM imidazole, 0.1mM PMSF, 0.25mM DTT, and 25% glycerol.

### Storage and Stability

Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

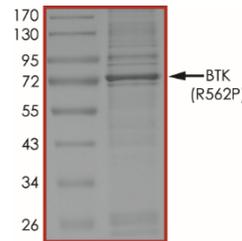
### Scientific Background

BTK (also known as Bruton tyrosine kinase) plays a crucial role in B-lymphocyte differentiation and activation. BTK interacts with SRC homology 3 domains of FYN, LYN and HCK that are activated upon stimulation of B- and T-cell receptors (1). Defects in the BTK gene cause Agammaglobulinemia, an X-linked immunodeficiency characterized by failure to produce mature B lymphocyte cells and associated with a failure of Ig heavy chain rearrangement. The unique role of BTK makes it a desirable target for potential anti-cancer, anti-inflammatory and anti-viral agents as well as other treatments (2).

### References

- Cheng, G. et al: Binding of Bruton's tyrosine kinase to Fyn, Lyn, or Hck through a Src homology 3 domain-mediated interaction. *Proc. Nat. Acad. Sci.* 91: 8152-8155, 1994.
- Vassilev, A O. et al: Therapeutic potential of inhibiting Bruton's tyrosine kinase, (BTK). *Curr Pharm Des.* 2004;10(15):1757-66.

### Purity



The purity of BTK (R562P) was determined to be **>70%** by densitometry, approx. MW **~75kDa**.

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Catalog #	B10-12DH
Lot #	H2931-1P1
Purity	>70%
Concentration	0.1 µg/µl
Stability	1yr at -70°C from date of shipment
Storage & Shipping	Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.

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