Recombinant Human BTK, GST-tagged

Cat. No. BTK-530H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human BTK was expressed by baculovirus in*Sf9 insect cell*susing a N-terminal GST tag. MW=106kDa.
Species	Human
Source	Sf9 Cells
Description	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. 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.
Purity	>80%.
Specific Activity	23 pmol/min/μg.
Assay condition	The enzyme reaction wascarried out for 1h at room temperature in abuffer containing 50 mM HEPES (pH7.5),10 mM MgCl2, 1 mM EDTA, 0.01% BRIJ-35 and 200 μM of ATP. Substrate : 2 μM Tyr peptide 1 from Invitrogen.
Application	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

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Formulated In	25 mM Tris-HCl, pH 8.0, 100 mM NaCl, 0.05% Tween-20, 50% glycerol, and 3 mM DTT.
Stability	>6 months at –80°C.

GENE INFORMATION

Gene Name	BTK Bruton agammaglobulinemia tyrosine kinase [Homo sapiens]
Synonyms	BTK; Bruton agammaglobulinemia tyrosine kinase; AT; ATK; BPK; XLA; IMD1; AGMX1; PSCTK1; MGC126261; MGC126262; OTTHUMP00000023676; OTTHUMP00000063593; Bruton tyrosine kinase; B-cell progenitor kinase; tyrosine-protein kinase BTK; agammaglobulinemia tyrosine kinase; dominant-negative kinase-deficient Brutons tyrosine kinase
Gene ID	695
mRNA Refseq	NM_000061
Protein Refseq	NP_000052
MIM	300300
UniProt ID	Q06187
Chromosome Location	Xq21.33-q22
Pathway	B cell receptor signaling pathway; Fc epsilon RI signaling pathway
Function	ATP binding; identical protein binding; kinase activity; metal ion binding; non-

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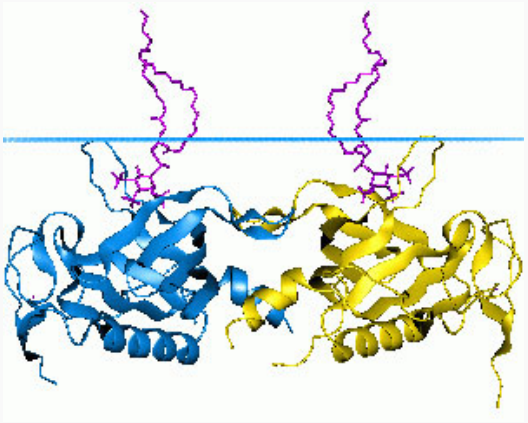
	membrane spanning protein tyrosine kinase activity; nucleotide binding; protein binding; protein tyrosine kinase activity; transferase activity; zinc ion binding
PH domain of Bruton"s tyrosine kinase dimer with bound lipids. Blue plane shows hydrocarbon boundary of the lipid bilayer.	

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