

Recombinant Human TXK Protein (I2-W527), GST tagged

Cat. No. TXK-0749H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GST-TEV-GG-TXK(I2-W527 end) Protein was expressed in Insect cell.
Species	Human
Source	Insect Cells
ProteinLength	I2-W527
Description	Non-receptor tyrosine kinase that plays a redundant role with ITK in regulation of the adaptive immune response. Regulates the development, function and differentiation of conventional T-cells and nonconventional NKT-cells. When antigen presenting cells (APC) activate T-cell receptor (TCR), a series of phosphorylation leads to the recruitment of TXK to the cell membrane, where it is phosphorylated at Tyr-420. Phosphorylation leads to TXK full activation. Contributes also to signaling from many receptors and participates in multiple downstream pathways, including regulation of the actin cytoskeleton. Like ITK, can phosphorylate PLCG1, leading to its localization in lipid rafts and activation, followed by subsequent cleavage of its substrates. In turn, the endoplasmic reticulum releases calcium in the cytoplasm and the nuclear activator of activated T-cells (NFAT) translocates into the nucleus to perform its transcriptional duty. Plays a role in the positive regulation of IFNG transcription in T-helper 1 cells as part of an IFNG promoter-binding complex with PARP1 and EEF1A1. Within the complex, phosphorylates both PARP1 and EEF1A1. Phosphorylates also key sites in LCP2 leading to the up-regulation of Th1 preferred

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	cytokine IL-2. Phosphorylates 'Tyr-201' of CTLA4 which leads to the association of PI-3 kinase with the CTLA4 receptor.
Form	Liquid
Endotoxin	< 0.01 EU per µg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	TXK TXK tyrosine kinase [Homo sapiens (human)]
Official Symbol	TXK
Synonyms	TXK; TXK tyrosine kinase; PTK4, PTK4 protein tyrosine kinase 4; tyrosine-protein kinase TXK; BTKL; PSCTK5; RLK; TKL; tyrosine kinase; protein-tyrosine kinase 4; resting lymphocyte kinase; PTK4 protein tyrosine kinase 4; PTK4; MGC22473;
Gene ID	7294

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mRNA Refseq	NM_003328
Protein Refseq	NP_003319
MIM	600058
UniProt ID	P42681

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