

Recombinant Human Inositol-Tetrakisphosphate 1-kinase, His-tagged

Cat. No. ITPK1-1351H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human ITPK1 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
ProteinLength	1-414aa
Description	Inositol-tetrakisphosphate 1-kinase, also known as ITPK1, is a 414 amino acid monomer that belongs to the ITPK1 family and exists as two alternatively spliced isoforms. ITPK1 is found at highest levels in brain, followed by heart, skeletal muscle, kidney, pancreas, liver, placenta and lung. ITPK1 contains one ATP-grasp domain and has been found to phosphorylate various inositol polyphosphates and modify TNFalpha induced apoptosis.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 10% glycerol, 1mM EDTA.
Molecular Mass	48.1 kDa (438aa), confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGSHMQTFLK GKRVGYWLSE KKIKKLNFQA FAELCRKRG M EVVQLNLSRP IEEQGPLDVI IHKLTDVILE ADQNDSQSLE LVHRFQEYID AHPETIVLDP LPAIRTLLDR SKSYELIRKI EAYMEDDRIC

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SPPFMELTSL CGDDTMRLLE KNGLTFPFIC KTRVAHGTNS HEMAIVFNQE
 GLNAIQPPCV VQNFINHNAV LYKVFVVGES YTVVQRPSLK NFSAGTSDRE
 SIFFNSHNVS KPESSSVLTE LDKIEGVFER PSDEVIRELS RALRQALGVS
 LFGIDIIINN QTGQHAVIDI NAFPGYEGVS EFFTDLNHI ATVLQGQSTA
 MAATGDVALL RSKLLAEP A GGLVGERTCS ASPGCCGSM GQDAPWKAEA
 DAGGTAKLPH QRLGCNAGVS PSFQQHCVAS LATAKASSQ

Purity >95% by SDS - PAGE

Applications SDS-PAGE

Storage Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

Concentration 1 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name [ITPK1 inositol-tetrakisphosphate 1-kinase \[Homo sapiens \]](#)

Official Symbol ITPK1

Synonyms ITPK1; inositol-tetrakisphosphate 1-kinase; inositol 1,3,4 triphosphate 5/6 kinase; ins(1,3,4)P(3) 5/6-kinase; inositol-triphosphate 5/6-kinase; inositol 1,3,4-triphosphate 5/6 kinase; inositol 1,3,4-trisphosphate 5/6 kinase; inositol 1,3,4-trisphosphate 5/6-kinase; ITRPK1;

Gene ID [3705](#)

mRNA Refseq [NM_001142593](#)

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Protein Refseq	NP_001136065
MIM	601838
UniProt ID	Q13572
Chromosome Location	14q32.12
Pathway	1D-myo-inositol hexakisphosphate biosynthesis II (mammalian), organism-specific biosystem; 1D-myo-inositol hexakisphosphate biosynthesis II (mammalian), conserved biosystem; 1D-myo-inositol hexakisphosphate biosynthesis V (from Ins(1,3,4)P3), organism-specific biosystem; D-myo-inositol (1,4,5,6)-tetrakisphosphate biosynthesis, organism-specific biosystem; D-myo-inositol (1,4,5,6)-tetrakisphosphate biosynthesis, conserved biosystem; D-myo-inositol (3,4,5,6)-tetrakisphosphate biosynthesis, organism-specific biosystem; D-myo-inositol (3,4,5,6)-tetrakisphosphate biosynthesis, conserved biosystem;
Function	ATP binding; catalytic activity; hydrolase activity; inositol tetrakisphosphate 1-kinase activity; inositol-1,3,4-trisphosphate 5-kinase activity; inositol-1,3,4-trisphosphate 6-kinase activity; isomerase activity; kinase activity; ligase activity; magnesium ion binding; nucleotide binding; transferase activity;