

## Product datasheet for TP506652

### Itpk1 (NM\_172584) Mouse Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse inositol 1,3,4-triphosphate 5/6 kinase (Itpk1), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR206652 protein sequence Red=Cloning site Green=Tags(s)

MQTFLKGKRVGYWLSEKKVKKLNFQAFaelCRKRGIEVWQLNLSRPIEEQGPLDVIIHKLTDVILEADQN  
DSQSLELVHRFQEYIDAHPETIVLDPLPAIRTLDRSKSYELIRKIEAYMKDDRICSPFMELTSLCGED  
TMRLLQNGLAFPFICKTRVAHGNTSHEMAIVFNQEGLNAIQPPCVVQNFINHNAVLYKVFVVGESYTVV  
QRPSLKNFSAGTSDRESIFFNHNVSKEPSSSVLTELKIEGVFERPSDEVIRELSRALRQALGVSLFGI  
DIIINNQTGQHAVIDVNAFPGYEGVSEFFTDLLNHIATVLQGQSTGGAATEEVAPLRHNRLLAEPAGSLA  
GERTCSASPGCCGSMKGQDTPWKTETEAGNMGAGASAKLPHQRLGCTTGVSPSFQQHCVASLATKASSQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-MYC/DDK
Predicted MW:	46.1 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	<a href="#">NP_766172</a>
Locus ID:	217837
UniProt ID:	<a href="#">Q8BYN3</a>



[View online »](#)

RefSeq Size: 2856

Cytogenetics: 12 E

RefSeq ORF: 1260

Synonyms: BC031182

**Summary:** Kinase that can phosphorylate various inositol polyphosphate such as Ins(3,4,5,6)P4 or Ins(1,3,4)P3. Phosphorylates Ins(3,4,5,6)P4 at position 1 to form Ins(1,3,4,5,6)P5. This reaction is thought to have regulatory importance, since Ins(3,4,5,6)P4 is an inhibitor of plasma membrane Ca(2+)-activated Cl(-) channels, while Ins(1,3,4,5,6)P5 is not. Also phosphorylates Ins(1,3,4)P3 on O-5 and O-6 to form Ins(1,3,4,6)P4, an essential molecule in the hexakisphosphate (InsP6) pathway. Also acts as an inositol polyphosphate phosphatase that dephosphorylates Ins(1,3,4,5)P4 and Ins(1,3,4,6)P4 to Ins(1,3,4)P3, and Ins(1,3,4,5,6)P5 to Ins(3,4,5,6)P4. May also act as an isomerase that interconverts the inositol tetrakisphosphate isomers Ins(1,3,4,5)P4 and Ins(1,3,4,6)P4 in the presence of ADP and magnesium. Probably acts as the rate-limiting enzyme of the InsP6 pathway. Modifies TNF-alpha-induced apoptosis by interfering with the activation of TNFRSF1A-associated death domain (By similarity). Plays an important role in MLKL-mediated necroptosis. Produces highly phosphorylated inositol phosphates such as inositolhexakisphosphate (InsP6) which bind to MLKL mediating the release of an N-terminal auto-inhibitory region leading to its activation. Essential for activated phospho-MLKL to oligomerize and localize to the cell membrane during necroptosis (By similarity).[UniProtKB/Swiss-Prot Function]