

Product datasheet for **MC205100**

Itpk1 (NM_172584) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Itpk1 (NM_172584) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Itpk1
Synonyms:	BC031182
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC056464
 CCGGACCCAGGCTCCCGGGCCGAGGAGGAAGAAGATGCAGACCTTCTGAAAGGGAAGAGAGTTGGCTAC
 TGGCTGAGCGAGAAGAAAGTCAAGAAGCTCAATTTCCAGGCCCTTCGCGGAGCTGTGCAGGAAGCGAGGGA
 TAGAAGTCGTGCAGCTGAACCTCAGCAGACCGATTGAGGAGCAGGGCCCCCTGGACGTATCATCCACAA
 GCTGACCGATGTCATCCTCGAGGCAGACCAGAATGACAGCCAGTCCCTGGAATTGGTGCACAGGTTCCAA
 GAGTACATCGATGCTCACCTGAGACCATCGTCTTGGATCCCCTCCCCGCATCAGGACCCTGTTAGACC
 GTTCCAAGTCTACGAACTTATCCGAAAGATCGAGGCCATACATGAAAGATGACAGAATCTGCTCGCCGCC
 TTTTCATGGAGCTCACGAGCCTGTGTGGGAGGACACCATGAGGCTGCTGGAGCAGAACGGCCTGGCCTTC
 CCCTTCATTTGCAAAAACAGAGTGGCTCATGGAACCAACTCTCATGAGATGGCTATTGTGTTCAACCAAG
 AGGGCCTGAATGCCATCCAGCCTCCCTGTGTGGTCCAGAACTTCAACCAACAATGCTGTCTGTACAA
 GGTGTTTGTGGTGGGCGAGTCTACACAGTGGTCCAGAGACCCTCACTCAAGAATTCTCTGCGGGCACA
 TCAGATCGTGAGTCCATCTTCTTCAACAGCCACAATGTGTCAAAGCCGGAGTCTTCATCAGTCTCACTG
 AGCTGGACAAGATCGAGGGTGTGTTGCAACGCCAAGCGATGAGGTTATCCGGGAGCTGTCCCGGGCTCT
 GCGGCAGGCGCTGGGAGTGTCACTGTTTGAATTGACATCATTAACAACCAGACCGGGCAGCATGCA
 GTCATCGATGTCATGCCTTCCAGGCTATGAAGGAGTGAGTGAGTTCTTACCAGCCTCTGAACCACA
 TTGCCACAGTTCTGCAAGGCCAGAGCACGGGAGGAGCTGCCACGGAGGAAGTGGCCCCGCTAAGGCACAA
 CAGGCTCCTGGCGGAACCGGCAGGCAGCCTGGCTGGGGAGCGGACGTGCAGTGCCAGCCCTGGCTGCTGT
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 CCGCCAAGCTGCCGACCCAGAGACTTGGCTGCACCCTGGCGTATCACCCAGCTTCCAGCAGCACTGTGT
 GGCCTCTCTGGCCACCAAGGCTTCTCACAGTAGCCACAGAGCCAGGACCCAGAGGGGCAGAGCGTGGA
 AAATGCCCACTGGGCCAGCAGCTCCACATGGGAACACTACTAAGAATCCTGGTGATCTGAGGCTTCTCT
 GTTTTAATTTTTTACCTGATTTTCTGATGTTATGATCGGAATGAAGGGGGGAGACAGAGCAGAACATCA
 AGTGGCCAGCCTCGAGGACCGCCCTGACTCCTGCTGTGCAGAGGTCTCACTGAGTTTACACACGCTT
 GTGTTCTCAACACTAGGTCTGAATGTGAGGGGGGGGGTGCCTGTGTGTGTGTGTGTGTGTGTGTGTG
 TGTGTGTGTGTTGTCATGGCAAGGGTG
 TGTGTGTGTGTTGTCATGGCAAGGGTG
 GGGCACCGAGGAAGGAAGCCATATCTGGCCAGGCTGTTGCAGCTAAGCAGGCGAAGGACGAACGGTTTT
 CCCAGTCCCCTCCTTTCACACCTGCCACACCCAGACCTCACCTCCCTTGTCCCAGATGTGCTCT
 CCTCAAGGCTAACCTTGGCCCCCACCTCGCTCTCAAAGCCAGGGAAGCAGTAGACGCCCTCGGG
 AGCTCTGCATGGAGGATCTGGGTGTAGGAAGGAAAGGAGCTTCTGTGGGTGTAGCCGAAGCCACTG
 GCTATTGTAGTCTTCACTGGCTCGTGAATACAGCAGGCCACTATCCACCTACCCTGACCCTATTGCT
 CACTGAGATCCAGGAAGGAGCCATCTGACTAGGAGTCCAGGAGTCTGCCAGGACCAGGATTTACCCTGG
 GACTTCCAACAGATCATTCCGTGAGTCTTCAGGCCTCCACCACCTCATCTTTCAGGGTGGCTCCTGAAA
 CAGAGAACTGAAGGCCTGGTCTAGTGGTCTAGCCACAGGATCTCTGCTTCTCATGTATCATCCGGT
 CCCTCTTTTCAGGTGAGAGGAGACCACCCACAGGGCTGCTCCTGTTACACGCGCAGACCCCTCCTGAA
 CAGCAAGGCCAGCTCCTTCTGCTGTGTTTATAGCGAGTCCCTTGCAGTGTGAGCACCAGGCAAGCCCCA
 AGGGAGTTGTGCCCATTTTCACTCACTGTACCCACAGCAGTGGCAGACCACCCACTGGCCCCAAA
 GCCCACAGGAAAGGACCCCTGTGGAGCCCCAGGTGAGCAGCCAGGACCCCAAGGGTGTCTTGTGTCT
 TAAGACATCAGCTCACTATGTAAGAGAATGAGGCCTCTGGGTTGCTTAGGTCTAATAAGATAGAGTA
 CACTAGAAGCAGCAGCCCTGGGAAGGCCACTAAGGGCCATGCAGGGGCATCCTTTGGCAAGGAGAAGCC
 GATTGGCTTCTCGGAAGCAGAGCCCAGGACTAACACGTTTACAGGACCTGAGTGTGAACTGATTGA
 TGTCTGTAAGTACCTTCCAGGCTGACCCTGAAAACAGGGGGTGGGAAGCGTGGCCGCCTTGTCACT
 GCTTTGTCTCCGGAATAAACTACTGAGATCAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Ascl-NotI
ACCN: NM_172584
Insert Size: 1260 bp

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	BC056464 , AAH56464
RefSeq Size:	2849 bp
RefSeq ORF:	1260 bp
Locus ID:	217837
UniProt ID:	Q8BYN3
Cytogenetics:	12 E
Gene 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 dephosphorylate 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]