TTK cDNA Clone – TTK Protein Kinase (Human)

PRODUCT OVERVIEW

Product Name	TTK, cDNA Clone
Full Product Name	TTK cDNA Clone
Product Gene Name	TTK cdna clone
Sequence	atggaatccg aggatttaag tggcagagaa ttgacaattg attccataat gaacaaagtg agagacatta aaaataagtt taaaaatgaa gaccttactg atgaactaag cttgaataaa atttctgctg atactacaga taactcggga actgttaacc aaattatgat gatggcaaac aacccagagg actggttgag tttgttgctc aaactagaga aaaacagtgt tccgctaagt gatgctcttt taaataaatt gattggtcgt tacagtcaag caattgaagc gcttccccca gataaatatg gccaaaatga gagttttgct agaattcaag tgagatttgc tgaattaaaa gctattcaag agccagatga tgcacgtgac tactttcaaa tggccagagc aaactgcaag aaatttgctt ttgttcatat atcttttgca caatttgaac tgtcacaagg taatgtcaaa aaaagtaaac aacttcttca aaaagctgta gaacgtggag cagtaccact agaaatgctg gaaattgccc tgcggaattt aaacctccaa aaaaagcagc tgctttcaga ggaggaaaag aagaatttat cagcatctac ggtattaact gcccaagaat cattttccgg ttcacttggg catttacaga ataggaacaa cagttgtgat tccagaggac agactactaa agccaggttt ttatatggag agaacatgcc accacaagat gcagaaatag gttaccggaa ttcattgaga caaactaaca aaactaaaca gtcatgccca tttggaagag tcccagttaa ccttctaaat agcccagatt gtgatgtgaa gacagatgat tcagttgtac cttgttttat gaaaagacaa acctctagat cagaatgccg agatttggtt gtgcctggat ctaaaccaag tggaaatgat tcctgtgaat taagaaattt aaagtctgtt caaaatagtc atttcaagga acctctggtg tcagatgaaa agagttctga acttattatt actgattcaa taaccctgaa gaataaaacg gaatcaagtc ttctagctaa attagaagaa actaaagagt atcaagaacc agaggttcca gagagtaacc agaaacagtg gcaatctaag agaaagtcag agtgtattaa ccagaatcct gctgcatctt caaatcactg gcagattccg gagttagccc gaaaagttaa tacagagcag aaacatacca cttttgagca acctgtcttt tcagtttcaa aacagtcacc accaatatca acatctaaat ggtttgaccc aaaatctatt tgtaagacac caagcagcaa taccttggat gattacatga gctgttttag aactccagtt gtaaagaatg actttccacc tgcttgtcag ttgtcaacac cttatggcca acctgcctgt ttccagcagc aacagcatca aatacttgcc actccacttc aaaatttaca ggttttagca tcttcttcag caaatgaatg catttcggtt aaaggaagaa tttattccat tttaaagcag ataggaagtg gaggttcaag caaggtattt caggtgttaa atgaaaagaa acagatatat gctataaaat atgtgaactt agaagaagca gataaccaaa ctcttgatag ttaccggaac gaaatagctt atttgaataa actacaacaa cacagtgata agatcatccg actttatgat tatgaaatca cggaccagta catctacatg gtaatggagt gtggaaatat tgatcttaat agttggctta aaaagaaaaa atccattgat ccatgggaac gcaagagtta ctggaaaaat atgttagagg cagttcacac aatccatcaa catggcattg ttcacagtga tcttaaacca gctaactttc tgatagttga tggaatgcta aagctaattg attttgggat tgcaaaccaa atgcaaccag atacaacaag tgttgttaaa gattctcagg ttggcacagt taattatatg ccaccagaag caatcaaaga tatgtcttcc tccagagaga atgggaaatc taagtcaaag ataagcccca aaagtgatgt ttggtcctta ggatgtattt tgtactatat gacttacggg aaaacaccat ttcagcagat aattaatcag atttctaaat tacatgccat aattgatcct aatcatgaaa ttgaatttcc cgatattcca gagaaagatc ttcaagatgt gttaaagtgt tgtttaaaaa gggacccaaa acagaggata tccattcctg agctcctggc tcatccctat gttcaaattc aaactcatcc agttaaccaa atggccaagg gaaccactga agaaatgaaa tatgttctgg gccaacttgt tggtctgaat tctcctaact ccatttttgaa agctgctaaa actttatatg aacactatag tggtggtgaa agtcataatt cttcatcctc caagactttt gaaaaaaaaa ggggaaaaaa atga
Molecular Weight	96,944 Da
OMIM	604092
Vector	pENTR223.1 or pUC
Clone Sequence Report	Provided with product shipment
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for TTK cdna clone	MBS1266270 is a cDNA clone targeting TTK.
Other Notes	Small volumes of TTK cdna clone vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TTK. It may not necessarily be applicable to this product.

NCBI GI #	33990673

NCBI GeneID	7272
NCBI Accession #	BC000633
UniProt Secondary Accession #	Q15272; Q5TCS0; Q9BW51; Q9NTM0; A8K8U5; B2RDW2; E1P543
UniProt Related Accession #	P33981
NCBI Official Full Name	Homo sapiens TTK protein kinase, mRNA
NCBI Official Synonym Full Names	TTK protein kinase
NCBI Official Symbol	TTK
NCBI Official Synonym Symbols	ESK; PYT; CT96; MPH1; MPS1; MPS1L1
UniProt Protein Name	Dual specificity protein kinase TTK
UniProt Synonym Protein Names	Phosphotyrosine picked threonine-protein kinase; PYT
Protein Family	Dual specificity protein kinase
UniProt Gene Name	TTK
UniProt Synonym Gene Names	MPS1; MPS1L1; PYT
UniProt Entry Name	TTK_HUMAN
NCBI Protein Information	dual specificity protein kinase TTK
NCBI Summary for TTK	This gene encodes a dual specificity protein kinase with the ability to phosphorylate tyrosine, serine and threonine. Associated with cell proliferation, this protein is essential for chromosome alignment at the centromere during mitosis and is required for centrosome duplication. It has been found to be a critical mitotic checkpoint protein for accurate segregation of chromosomes during mitosis. Tumorigenesis may occur when this protein fails to degrade and produces excess centrosomes resulting in aberrant mitotic spindles. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Nov 2009]
UniProt Comments for TTK	TTK: a dual-specificity protein kinase orthologous to the yeast monopolar spindle (Mps1) kinase that is required for spindle pole duplication and the spindle checkpoint but not for centrosome duplication. Localized to centrosomes, kinetochores and nuclear pores. Its enzymatic activity is required for the recruitment of Mad1, Mad2, Bub1 and Bub3 to the kinetochore. Mps1 mRNA levels change little throughout the cell cycle, but its protein expression varies during the cell cycle. Overexpression arrests cells in metaphase by activating the checkpoint. Protein type: Cancer Testis Antigen (CTA); Kinase, protein; Protein kinase, dual-specificity (non-receptor); EC 2.7.12.1; Protein kinase, Other; Other group; TTK family Chromosomal Location of Human Ortholog: 6q14.1 Cellular Component: cytoplasm; membrane; spindle Molecular Function: protein binding Biological Process: mitotic cell cycle spindle assembly checkpoint; mitotic spindle organization and biogenesis; positive regulation of cell proliferation; spindle organization and biogenesis
Research Articles on TTK	**1.** TTK contributes to hepatocellular carcinoma tumorigenesis via promoting cell proliferation and migration
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