

Product datasheet for **RC225408**

MPST (NM_001130517) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: MPST (NM_001130517) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: MPST
Synonyms: MST; TST2; TUM1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC225408 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTTCGCGCAGCTCTGCCGCGCTGGTGTGGCGCAATGGGTGGCGGAGGCGCTGCGGGCCCCGC
 GCGCTGGGCAGCCTCTGCAGCTGCTGGACGCTCCTGGTACCTGCCGAAGCTGGGCGCGACGCGCGACG
 CGAGTTCGAGGAGCGCCACATCCCGGGCGCGCTTTCTTCGACATCGACCAGTGCAGCGACCGCACCTCG
 CCCTACGACCACATGCTGCCCGGGCCGAGCATTTCGCGGAGTACGAGCGCCCTGGGCGTGGGCGCGG
 CCACCCACGTCGTGATCTACGACGCCAGCGACCAGGGCCTCTACTCCGCCCGCGCGTCTGGTGGATGTT
 CCGCGCCTTCGGCCACCACGCCGTGCTACTGCTTGGTGGCGCCTCCGCCACTGGCTGCGCCAGAACCTC
 CCGCTCAGCTCCGGCAAGAGCCAACCTGCTCCCGCGAGTTCGCGCTCAGCTCGACCCCGCCTTCATCA
 AGACCTACGAGGACATCAAGGAGAACCTGGAATCCCGGCGCTTCCAGGTGGTGGACTCCCGAGCCACTGG
 CAGGTTCCGCGCACCGAGCCCGAGCCCGAGACGGCATTGAACCTGGCCACATCCAGGTACCGTGAAC
 ATCCCCTTACAGACTTCTGAGCCAGGAGGGGCTGGAGAAGAGCCCTGAGGAGATCCGCCATCTGTTCC
 AGGAGAAGAAAGTGGACCTGTCTAAGCCACTGGTGGCCACGTGTGGCTCTGGCGTACAGCCTGCCACGT
 GGCCTAGGGGCTACCTCTGCGCAAGCCAGACGTGCCATCTACGATGGCTCCTGGGTGGAGTGGTAC
 ATGCGCGCCCGGCCGAGGATGTCTCAGAGGGCCGGGGAAGACCCAC

ACGCGTACGCGGCGCCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC225408 protein sequence
Red=Cloning site Green=Tags(s)

MASPQLCRALVSAQWVAEALRAPRAGQPLQLLDASWYLPKLGRDARREFEERHHPGAAFFDIDQCSDRTS
 PYDHMLPGAEHFAEYAGRLGVGAATHVVIYDASDQGLYSAPRVWMMFRAFGHHAVSLLDGGLRHHLRQNL
 PLSGKSPAPAEFRAQLDPAFIKTYEDIKENLESRRFQVVDSTRATGRFRGTEPEPRDGIPEGHIPGTVN
 IPFTDFLSQEGLEKSPEEIRHLFQEKKVDLSKPLVATCGSGVTACHVALGAYLCGKPDVPIYDGSWVEWY
 MRARPEVDVISEGRGKTH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6421_d03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001130517

ORF Size: 891 bp

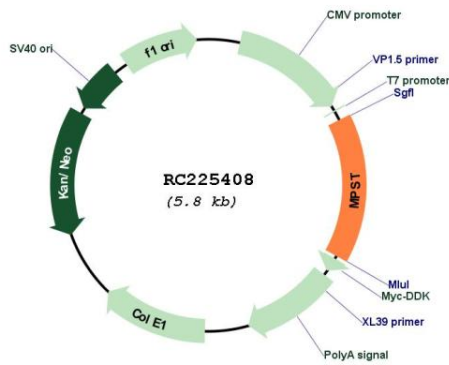
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

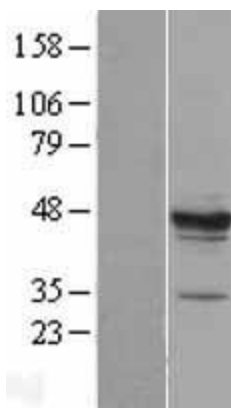
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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:	NM_001130517.4
RefSeq Size:	1547 bp
RefSeq ORF:	894 bp
Locus ID:	4357
UniProt ID:	P25325
Cytogenetics:	22q12.3
Protein Families:	Druggable Genome
Protein Pathways:	Cysteine and methionine metabolism, Metabolic pathways
MW:	33.2 kDa
Gene Summary:	<p>This protein encoded by this gene catalyzes the transfer of a sulfur ion from 3-mercaptopyruvate to cyanide or other thiol compounds. It may be involved in cysteine degradation and cyanide detoxification. There is confusion in literature between this protein (mercaptopyruvate sulfurtransferase, MPST), which appears to be cytoplasmic, and thiosulfate sulfurtransferase (rhodanese, TST, GeneID:7263), which is a mitochondrial protein. Deficiency in MPST activity has been implicated in a rare inheritable disorder known as mercaptolactate-cysteine disulfiduria (MCDU). Alternatively spliced transcript variants encoding same or different isoforms have been identified for this gene. [provided by RefSeq, Jul 2008]</p>

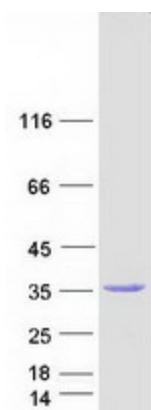
Product images:



Circular map for RC225408



Western blot validation of overexpression lysate (Cat# [LY427224]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225408 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MPST protein (Cat# [TP325408]). The protein was produced from HEK293T cells transfected with MPST cDNA clone (Cat# RC225408) using MegaTran 2.0 (Cat# [TT210002]).