

Product datasheet for **RC205101**

MPST (NM_021126) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
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:	>RC205101 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTTCGCCGAGCTCTGCCGCGCTGGTGTGGCGCAATGGGTGGCGGAGGCGCTGCGGGCCCCGCGCTGGGCAGCCTCTGCAGCTGCTGGACGCCTCCTGGTACCTGCCGAAGCTGGGCGCGACGCGCGACGCGAGTTCGAGGAGCGCCACATCCCGGGCGCCGCTTCTTCGACATCGACCAGTGCAGCGACCGCACCTCGCCCTACGACCACATGCTGCCCGGGCGCGAGCATTTCGCGGAGTACGAGGCCCTGGGCGTGGGCGCGGCCACCCACGTCTGATCTACGACGCCAGCGACGAGGCCCTCTACTCCGCCCGCGCTCTGGTGGATGTTCCGCGCCTTCGGCCACCGCCGTGTCACTGCTTGATGGCGGCCCTCCGCCACTGGCTGCCCAGAACCTCCGCTCAGCTCCGGCAAGAGCCAACCTGCTCCCGCCGAGTTCGCGCTCAGCTCGACCCCGCCTTCATCAAGACCTACGAGGACATCAAGGAGAACCTGGAATCCCGGCGCTTCCAGGTGGTGGACTCCCGAGCCACTGGCAGGTTCCGCGGCACCGAGCCCGAGCCCGAGACGGCATTGAACCTGGCCACATCCAGGTACCGTGAACATCCCCTTCACAGACTTCTGAGCCAGGAGGGGCTGGAGAAGAGCCCTGAGGAGATCCGCCATCTGTTCCAGGAGAAGAAAGTGACCTGTCTAAGCCACTGGTGGCCACGTGTGGCTCTGGCGTCACAGCCTGCCACGTGGCACTAGGGGCTACCTCTGCGCAAGCCAGACGTGCCATCTACGATGGCTCTGGGTGGAGTGGTACATGCGCGCCCGCCGAGGATGTCATCTCAGAGGGCCGGGGAAGACCCAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC205101 protein sequence
 Red=Cloning site Green=Tags(s)

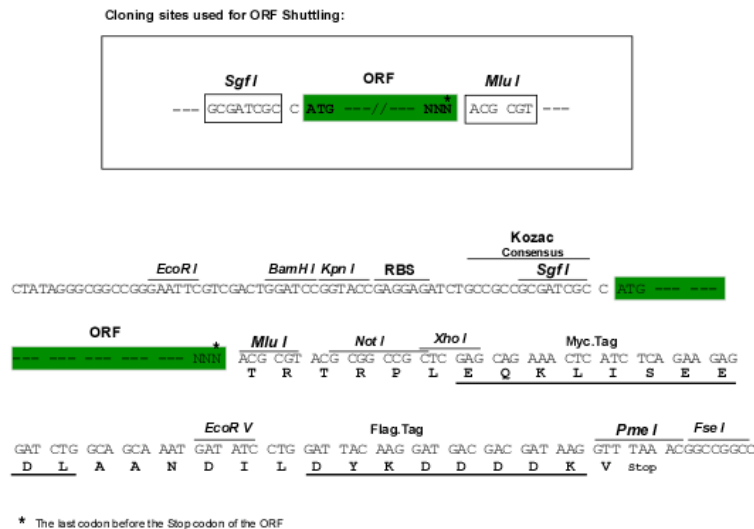
MASPQLCRALVSAQWVAEALRAPRAGQPLQLLDASWYLPKLGRDARFEERHIPGAAFFDIDQCSDRTS
 PYDHMLPGAEHFAEYAGRLGVGAATHVVIYDASDQGLYSAPRVWWMFRAFGHHAVSLDGGLRHWLRQNL
 PLSSGKSQPAPAEFRAQLDPAFIKTYEDIKENLESRRFQVVDSDRATGRFRGTEPEPRDGIPEGHIPGTVN
 IPFTDFLSQEGLEKSPEEIRHLFQEKVDLSKPLVATCGSGVTACHVALGAYLCGKPDVPIYDGSWVEWY
 MRARPEVDISEGRGKTH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6580_g05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_021126

ORF Size: 891 bp

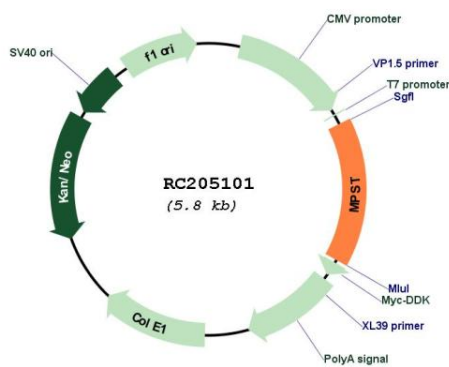
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

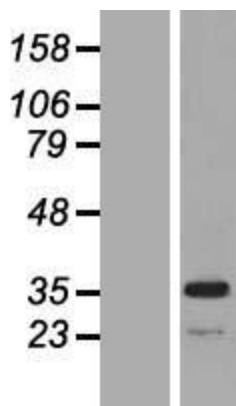
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_021126.3</u>
RefSeq Size:	1361 bp
RefSeq ORF:	954 bp
Locus ID:	4357
UniProt ID:	<u>P25325</u>
Cytogenetics:	22q12.3
Domains:	RHOD
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>

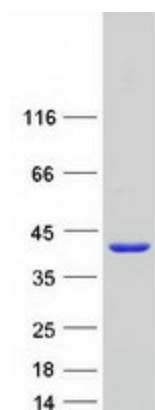
Product images:



Circular map for RC205101



Western blot validation of overexpression lysate (Cat# [LY412074]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205101 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MPST protein (Cat# [TP305101]). The protein was produced from HEK293T cells transfected with MPST cDNA clone (Cat# RC205101) using MegaTran 2.0 (Cat# [TT210002]).