

Product datasheet for **RG225408**

MPST (NM_001130517) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: MPST (NM_001130517) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: MPST
Synonyms: MST; TST2; TUM1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG225408 representing NM_001130517
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTTCGCGCAGCTCTGCCGCGCTGGTGTGGCGCAATGGGTGGCGGAGGCGCTGCGGGCCCCGC
 GCGCTGGGCGCCTCTGCAGCTGCTGGACGCTCCTGGTACCTGCCGAAGCTGGGCGCGACGCGCGACG
 CGAGTTCGAGGAGCGCCACATCCCGGGCGCGCTTTCTTCGACATCGACCAGTGCAGCGACCGCACCTCG
 CCCTACGACCACATGCTGCCGGGGCCGAGCATTTCGCGGAGTACGAGGCGCCTGGGCGTGGGCGCGG
 CCACCCACGTCGTGATCTACGACGCCAGCGACCGAGGGCCTCTACTCCGCCCGCGCGTCTGGTGGATGTT
 CCGCGCCTTCGGCCACCACGCGTGTACTGCTTGGTGGCGCCTCCGCCACTGGCTGCGCCAGAACCTC
 CCGCTCAGCTCCGCAAGAGCCAACCTGCTCCCGCGAGTTCGCGCTCAGCTCGACCCCGCCTTCATCA
 AGACCTACGAGGACATCAAGGAGAACCTGGAATCCCGCGCTTCCAGGTGGTGGACTCCCGAGCCACTGG
 CAGGTTCCGCGCACCGAGCCCGAGCCCGAGACGGCATTGAACCTGGCCACATCCAGGTACCGTGAAC
 ATCCCCTTACAGACTTCTGAGCCAGGAGGGGCTGGAGAAGAGCCCTGAGGAGATCCGCCATCTGTTCC
 AGGAGAAGAAAGTGGACCTGTCTAAGCCACTGGTGGCCACGTGTGGCTCTGGCGTACAGCCTGCCACGT
 GGCCTAGGGGCTACCTCTGCGCAAGCCAGACGTGCCATCTACGATGGCTCCTGGGTGGAGTGGTAC
 ATGCGCGCCCGCGCCGAGGATGTCATCTCAGAGGGCCGGGGAAGACCCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG225408 representing NM_001130517
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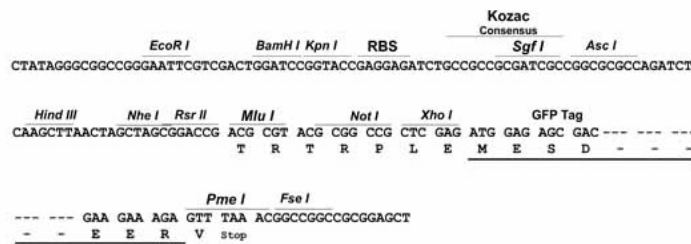
MASPQLCRALVSAQWVAEALRAPRAGQPLQLLDASWYLPKLGRDARREFEERHIPGAAFFDIDQCSDRTS
 PYDHMLPGAEHFAEYAGRLGVGAATHVVIYDASDQGLYSAPRVWMMFRAFGHHAVSLLDGGLRHWLRQNL
 PLSGSKSQPAPAEFRAQLDPAFIKTYEDIKENLESRRFQVVDSRATGRFRGTEPEPRDGIPEGHIPGTVN
 IPFTDFLSQEGLEKSPPEIRHLFQEKKVDLSKPLVATCGSGVTACHVALGAYLCGKPDVPIYDGSWVEWY
 MRARPEDVISEGRGKTH

TRTRPLE - GFP Tag - V

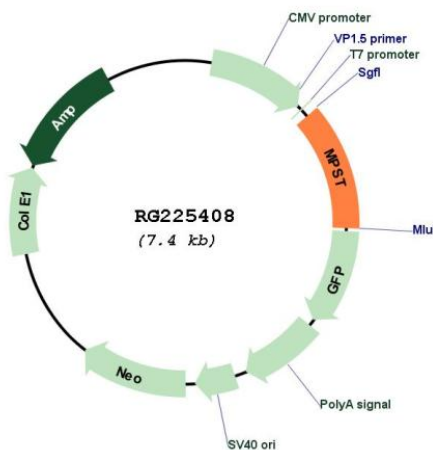
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



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:	1528 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
Gene Summary:	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]