

## Product datasheet for RC209510

### MASA (ENOPH1) (NM\_021204) Human Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | MASA (ENOPH1) (NM_021204) Human Tagged ORF Clone                  |
| Tag:                      | Myc-DDK   |
| Symbol:                   | MASA  |
| Synonyms:                 | E1; MASA; MST145; mtnC  |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-Entry (PS100001)  |
| E. coli Selection:        | Kanamycin (25 ug/mL)  |
| ORF Nucleotide Sequence:  | >RC209510 ORF sequence<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTCGTGCTTTCGGTCCCCGCCGAAGTCACCGTGATCCTGTTAGATATCGAAGGTACCACAACCCCGA  
TTGCTTTCGTGAAGGACATTTTATTTTCCTTACATCGAAGAAAATGTTAAAGAGTATCTGCAGACACATTG  
GGAAGAAGAGGAGTGCCAGCAGGATGTCAGTCTTTGAGGAAACAGGCTGAAGAGGACGCCACCTGGAT  
GGGGCTGTTCTATCCCTGCAGCATCTGGGAATGGAGTGGATGATCTGCAACAGATGATCCAGGCCGTGG  
TAGATAATGTGTGCTGGCAGATGTCCTGGATCGAAAGACCACTGCACTCAAACAGCTGCAGGGCCACAT  
GTGGAGGGCGGCATTACAGCTGGGCGCATGAAAGCAGAGTTCCTTGCAGATGTAGTTCACAGCAGTCAGG  
AAGTGGAGAGAGGCCGAATGAAGGTGTACATCTATTCCTCAGGGAGTGTGGAGGCACAGAACTGTTAT  
TCGGGCATTCTACGGAGGGAGATATTCTTGAGCTTGTGATGGTCACTTTGATACCAAGATTGGACACAA  
AGTAGAGAGTGAAAGTTACCGAAAGATTGCAGACAGCATTGGGTGCTCAACCAACAACATTTTGTTCCTG  
ACAGATGTTACTCGAGAGGCCAGTGCTGCTGAGGAAGCAGATGTGCACGTAGCTGTGGTGGTGAGACCAG  
GCAACGCAGGATTAACAGATGATGAGAAGACTTACTACAGCCTCATCACATCCTTCAGTGAACATATACCT  
GCCTTCCTCAACC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC209510 protein sequence  
 Red=Cloning site Green=Tags(s)

MVLSVPAEVTVILLDIEGTTTPIAFVKDILFPYIEENVKEYLQTHWEEEECQQDVSLLRKQAEEDAHL  
 GAVPIPAASGNGVDDLQQMIQAVVDNVCWQMSLDRKTTALKQLQGHMWRRAFTAGRMKAEFFADVVP  
 AVRKWREAGMKVYIYSSGSVEAQKLLFGHSTEGDILELVDGHFDTKIGHKVESESYRKIADSI  
 GCSSTNNILFLTDVTREASAAEEADVHVAVVVRPGNAGLTDDEKTYYSLITFSSELYLPSST

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6360\\_e06.zip](https://cdn.origene.com/chromatograms/mk6360_e06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_021204

**ORF Size:** 783 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:**

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\\_021204.5](#)

**RefSeq Size:** 2191 bp

**RefSeq ORF:** 786 bp

**Locus ID:** 58478

**UniProt ID:** [Q9UHY7](#)

**Cytogenetics:** 4q21.22

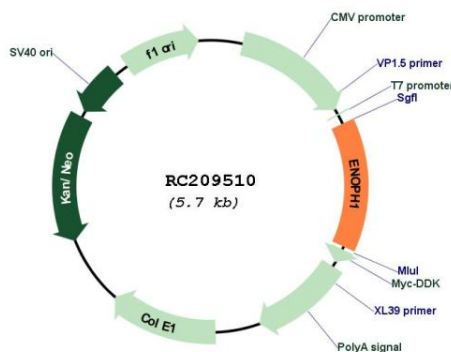
**Domains:** Hydrolase

**Protein Pathways:** Cysteine and methionine metabolism

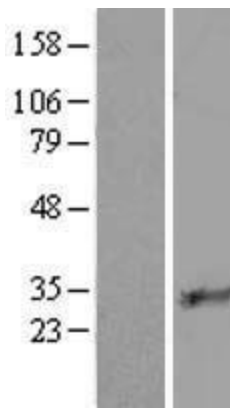
**MW:** 28.9 kDa

**Gene Summary:** Bifunctional enzyme that catalyzes the enolization of 2,3-diketo-5-methylthiopentyl-1-phosphate (DK-MTP-1-P) into the intermediate 2-hydroxy-3-keto-5-methylthiopentenyl-1-phosphate (HK-MTPenyl-1-P), which is then dephosphorylated to form the acireductone 1,2-dihydroxy-3-keto-5-methylthiopentene (DHK-MTPene).[UniProtKB/Swiss-Prot Function]

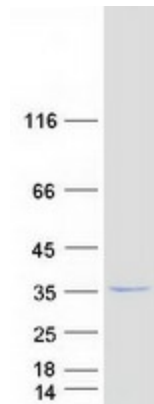
## Product images:



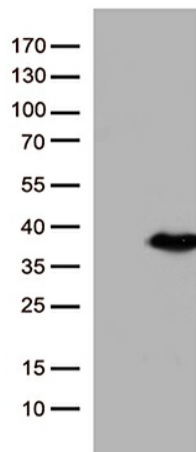
Circular map for RC209510



Western blot validation of overexpression lysate (Cat# [LY412010]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209510 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ENOPH1 protein (Cat# [TP309510]). The protein was produced from HEK293T cells transfected with ENOPH1 cDNA clone (Cat# RC209510) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ENOPH1 (Cat# RC209510, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ENOPH1 (Cat# [TA810905])(1:500). Positive lysates [LY412010] (100ug) and [LC412010] (20ug) can be purchased separately from OriGene.