

## Product datasheet for RC210473

### C 4 Methylsterol Oxidase (MSMO1) (NM\_006745) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	C 4 Methylsterol Oxidase (MSMO1) (NM_006745) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	C 4 Methylsterol Oxidase
Synonyms:	DESP4; ERG25; MCCPD; SC4MOL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210473 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCAACAAATGAAAGTGTGAGCATCTTTAGTTCAGCATCCTTGGCTGTGGAATATGTAGATTCACCTT  
TACCTGAGAATCCTCTGCAAGAACCATTTAAAAATGCTTGGAACTATATGTTGAATAATTATACAAAGTT  
CCAGATTGCAACATGGGGATCCCTTATAGTTCATGAAGCCCTTTATTTCTTATTCTGTTTACCTGGATTT  
TTATTTCAATTTATACCTTATATGAAAAATACAAAATTCAAAAGGATAAGCCAGAGACATGGGAAAACC  
AATGGAAGTGTTCAAAGTTCCTCTCTTAATCACTTCTGTATCCAGCTGCCTTTGATTTGTGGAACCTA  
TTATTTTACAGAGTATTTCAATATTCCTTATGATTGGGAAAGAATGCCAAGATGGTATTTCTTTTGGCA  
AGATGCTTTGGTTGTGCAGTCATTGAAGATACTTGGCACTATTTTCTGCATAGACTCTTACACCACAAAA  
GAATATACAAGTATATTCATAAAGTTCATCATGAGTTTCAGGCTCCATTTGGAATGGAAGCTGAATATGC  
ACATCCTTTGGAGACTCTAATCCTTGGAACTGGATTTTTCATTGGAATCGTGCTTTTGTGTGATCATGTA  
ATTCTTCTTTGGGCATGGGTGACCATTGTTTATTAGAACTATTGATGTCCATAGTGGTTATGATATTC  
CTCTCAACCTTTAAATCTGATCCCTTTCTATGCTGGTTCTCGGCATCATGATTTCCACCACATGAACCT  
CATTGGAACTATGCTTCAACATTTACATGGTGGGATCGAATTTTGGAAACAGACTCTCAGTATAATGCC  
TATAATGAAAAGAGGAAGAAGTTTGAAAAAAGACTGAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC210473 protein sequence  
Red=Cloning site Green=Tags(s)

MATNESVSI FSSASLAVEYVDSLLENPLQEPFKNAWNYMLNNTKFKQIATWGS L I VHEALYFLFCLPGF  
 LFQFIPYMKKYKIQKDKPETWENQWKCFKVL LFNHFCIQLPLICGTY YFTEYFNIPYDWERMPRWYFLLA  
 RCFGCAVIEDTWHYFLHRL LHHKRIYKYIHKVHHEFQAPFGMEAEYAHPLETLILGTGFFIGIVLLCDHV  
 ILLWAWVTIRLLETIDVHSGYDIPLNPLNLI PFYAGSRHHDFFHMMNFIGNYASTFTWWDRIFGTDSQYNA  
 YNEKRKKFEKKTE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6070\\_f05.zip](https://cdn.origene.com/chromatograms/mk6070_f05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_006745

**ORF Size:** 879 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\\_006745.5](#)

**RefSeq Size:** 2241 bp

**RefSeq ORF:** 882 bp

**Locus ID:** 6307

**UniProt ID:** [Q15800](#)

**Cytogenetics:** 4q32.3

**Domains:** Sterol\_desat

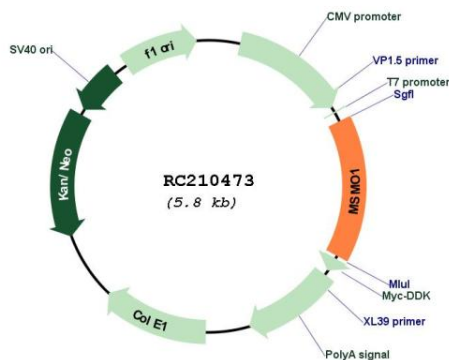
**Protein Families:** Transmembrane

**Protein Pathways:** Metabolic pathways, Steroid biosynthesis

**MW:** 35.2 kDa

**Gene Summary:** Sterol-C4-methyl oxidase-like protein was isolated based on its similarity to the yeast ERG25 protein. It contains a set of putative metal binding motifs with similarity to that seen in a family of membrane desaturases-hydroxylases. The protein is localized to the endoplasmic reticulum membrane and is believed to function in cholesterol biosynthesis. Alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RC210473