OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MR220435

Fmo3 (NM_008030) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fmo3 (NM_008030) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Fmo3
Synonyms:	AW111792
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>MR220435 representing NM_008030
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAGAAGAAAGTGGCCATCATTGGAGCTGGTGTCAGTGGCCTGGCTGCCATCAGGAGCTGTCTGGAGG
AGGGGCTGGAGCCCACATGCTTTGAGAGGAGTGATGATGTTGGGGGCCTGTGGAAATTCTCAGACCATAT
AGAAGAGGGCAGGGCCAGCATTTACCAATCGGTCTTCACCAACTCTTCCAAAGAGATGATGTGTTTTCCA
GACTTCCCCTATCCCGATGACTTTCCCAACTTCATGCATCACAGCAAGCTCCAAGAATACATCACTTCAT
TTGCCAAGGAAAAGAACCTCCTGAAATACATACAGTTTGAGACACCTGTAACCAGTATAAATAAATGTCC
TAATTTCTCAACTACTGGCAAATGGGAAGTCACCACTGAAAAGCACGGTAAAAAAGAAACAGCTGTCTTT
GATGCTACAATGATTTGTTCTGGGCATCACATATTTCCCCATGTACCAAAAGACTCCTTTCCAGGACTGA
ACCGTTTTAAAGGCAAATGCTTCCACAGCAGGGACTATAAGGAACCAGGAATATGGAAGGGAAAACGAGT
CCTGGTGATTGGCCTGGGGAACTCAGGCTGTGACATTGCTGCAGAACTCAGCCATGTAGCTCAGAAGGTC
ACCATCAGCTCTAGAAGTGGTTCTTGGGTGATGAGTCGAGTCTGGGACGATGGCTACCCTTGGGACATGG
TGGTGCTCACACGGTTTCAAACTTTCCTCAAAAACAACTTACCCACCGCCATCTCTGACTGGTGGTACAC
AAGGCAGATGAATGCCAGATTCAAGCACGAAAACTATGGTTTGGTGCCTTTAAACAGAACACTCAGGAAA
GAGCCCGTGTTCAATGATGAGCTCCCAGCCCGCATCCTGTGTGGCATGGTGACCATCAAGCCTAATGTAA
AGGAGTTCACAGAGACGTCCGCTGTGTTTGAGGATGGGACCATGTTTGAGGCCATTGACTGTGTCATCTT
TGCCACAGGCTATGGTTATGCCTACCCCTTCCTGGATGACTCTATTATCAAAAGCAGAAATAATGAGGTC
ACTTTGTACAAAGGTGTCTTCCCTCCTCAACTAGAGAAACCAACCATGGCAGTGATTGGCCTGGTCCAGT
CCCTGGGTGCCACCATCCCCATAACTGACCTGCAGGCACGCTGGGCAGCACAAGTAATAAAAGGAACTTG
CACTTTGCCTTCTGTAAACGACATGATGGATGACATTGATGAGAAAATGGGGGAAAAGTTCAAATGGTAT
GGCAATAGCACCACCATCCAGACAGATTACATTGTTTATATGGATGAACTGGCCTCCTTCATTGGTGCAA
AGCCCAATCTCCTATGGCTGTTTCTCAAGGATCCCAGGTTGGCTGTAGAAGTGTTCTTTGGCCCTTGCAG
CCCCTACCAGTTCCGGCTGGTAGGCCCAGGAAAGTGGTCAGGAGCCCGGAACGCCATCCTAACACAGTGG
GACCGATCACTGAAGCCTATGAAGACGCGTGTCGTCAGTAAAGTTCAGAAGTCTTGCTCTCACTTCTATT
CCCGTTTGCTCAGGCTCCTGGCTGTTCCCGTTCTGCTCATTGCTTTGTTCCTTGTGTTGATC

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR220435 representing NM_008030
Red=Cloning site Green=Tags(s)

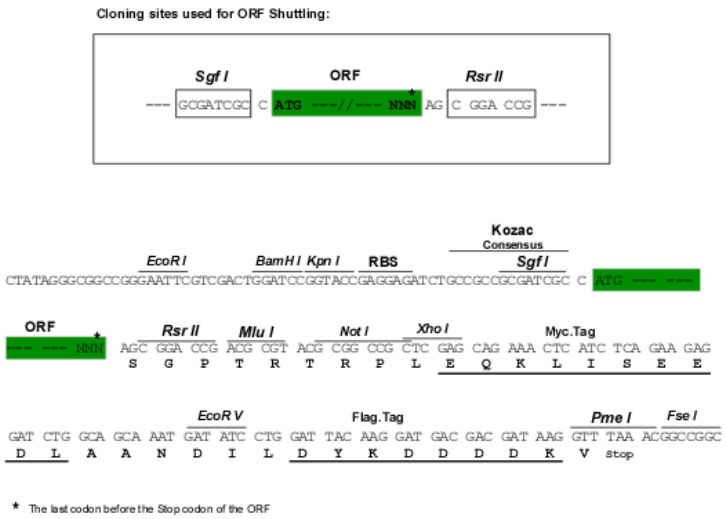
MKKKVAIIGAGVSGLAAIRSCLEEGLEPTCFERSDDVGGLWKFSDHIEEGRASIYQSVFTNSSKEMMCFP
DFPYPDDFPNFMHHSKLQEYITSFAKEKNLLKYIQFETPVTSINKCPNFSTTGKWEVTTEKHGKKETAVF
DATMICSGHHIFPHVPKDSFPGLNRFKGKCFHSRDYKEPGIWKGKRVLVIGLGNSGCDIAAELSHVAQKV
TISSRSGSWVMSRVWDDGYPWDMVVLTRFQTFLKNNLPTAISDWWYTRQMNARFKHENYGLVPLNRTLRK
EPVFNDELPARILCGMVTIKPNVKEFTETSAVFEDGTMFEAIDCVIFATGYGYAYPFLDDSIIKSRNNEV
TLYKGVFPPQLEKPTMAVIGLVQSLGATIPITDLQARWAAQVIKGTCTLPSVNDMMDDIDEKMGEKFKWY
GNSTTIQTDYIVYMDELASFIGAKPNLLWLFLKDPRLAVEVFFGPCSPYQFRLVGPGKWSGARNAILTQW
DRSLKPMKTRVVSKVQKSCSHFYSRLLRLLAVPVLLIALFLVLI

SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9015_f09.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_008030

ORF Size: 1602 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_008030.2, NP_032056.1

RefSeq Size: 2020 bp

RefSeq ORF: 1605 bp

Locus ID: 14262

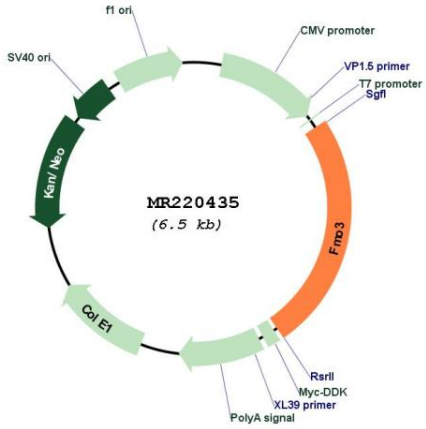
UniProt ID: P97501

Cytogenetics: 1 70.34 cM

MW: 61 kDa

Gene Summary: Essential hepatic enzyme that catalyzes the oxygenation of a wide variety of nitrogen- and sulfur-containing compounds including drugs as well as dietary compounds. Plays an important role in the metabolism of trimethylamine (TMA), via the production of trimethylamine N-oxide (TMAO) metabolite. TMA is generated by the action of gut microbiota using dietary precursors such as choline, choline containing compounds, betaine or L-carnitine. By regulating TMAO concentration, FMO3 directly impacts both platelet responsiveness and rate of thrombus formation.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR220435