

Product datasheet for **MG220435**

Fmo3 (NM_008030) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fmo3 (NM_008030) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Fmo3
Synonyms:	AW111792
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG220435 representing NM_008030
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGAAGAAAGTGCCATCATTGGAGCTGGTGTGTCAGTGGCCTGGCTGCCATCAGGAGCTGTCTGGAGG
 AGGGGCTGGAGCCACATGCTTTGAGAGGAGTGATGATGTTGGGGCCTGTGAAAATTCTCAGACCATAT
 AGAAGAGGGCAGGGCCAGCATTTACCAATCGGTCTTCACCAACTCTTCCAAAGAGATGATGTTTTTCCA
 GACTTCCCTATCCCGATGACTTCCCAACTTCATGCATCACAGCAAGCTCCAAGAATACATCACTTCAT
 TTGCCAAGGAAAAGAACCTCCTGAAATACATACAGTTTGAGACACCTGTAACCAGTATAAAATAAATGTCC
 TAATTTCTCAACTACTGGCAAATGGGAAGTCACCACTGAAAAGCACGGTAAAAAGAAAACAGCTGTCTTT
 GATGCTACAATGATTTGTTCTGGGCATCACATATTTCCCATGTACCAAAAGACTCCTTCCAGGACTGA
 ACCGTTTTAAAGGCAAATGCTTCCACAGCAGGGACTATAAGGAACCAGGAATATGGAAGGGAAAACGAGT
 CCTGGTGATTGGCCTGGGAACTCAGGCTGTGACATTGCTGCAGAACTCAGCCATGTAGCTCAGAAGGTC
 ACCATCAGCTCTAGAAGTGGTTCTTGGGTGATGAGTCGAGTCTGGGACGATGGCTACCCTGGGACATGG
 TGGTGCTCACACGGTTTCAAACCTTCTCAAAAACAACCTACCCACCGCCATCTCTGACTGGTGGTACAC
 AAGGCAGATGAATGCCAGATTCAAGCACGAAAACCTATGGTTTGGTGCCTTTAAACAGAACACTCAGGAAA
 GAGCCCGTGTTCATGATGAGCTCCAGCCCGCATCCTGTGTGGCATGGTGACCATCAAGCCTAATGTAA
 AGGAGTTCACAGAGACGTCGCTGTGTTGAGGATGGGACCATGTTTGAGGCCATTGACTGTGTCATCTT
 TGCCACAGGCTATGGTTATGCCTACCCCTTCTGGATGACTCTATTATCAAAAGCAGAAAATAAGAGGTC
 ACTTTGTACAAAGGTGTCTTCCCTCCTCAACTAGAGAAACCAACCATGGCAGTGATTGGCCTGGTCCAGT
 CCCTGGGTGCCACCATCCCATAAAGTACCTGCAGGCACGCTGGCAGCACAAGTAAATAAAGAACTTG
 CACTTTGCCTTCTGTAACGACATGATGGATGACATTGATGAGAAAATGGGGGAAAAGTTCAAATGGTAT
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 AGCCCAATCTCCTATGGCTGTTTCTCAAGGATCCAGGTTGGCTGTAGAAGTGTCTTTGGCCCTTGACG
 CCCCTACCAGTTCGGCTGGTAGGCCAGGAAAGTGGTCAGGAGCCCGAACGCCATCTAACACAGTGG
 GACCGATCACTGAAGCCTATGAAGACGCGTGTGTCAGTAAAGTTCAGAAGTCTTGCTCTCACTTCTATT
 CCCGTTTGCTCAGGCTCCTGGCTGTTCCCGTCTGCTCATTGCTTTGTTCTTGTGTTGATC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAA

Protein Sequence:

>MG220435 representing NM_008030
 Red=Cloning site Green=Tags(s)

MKKKVAIIGAGVSGLAAIRSCLLEGLEPTCFERSDDVGLWKFSDHIEEGRASIYQSVFTNSSKEMMCFP
 DFPYPDDFPNFMHHSKLEQYITSFAGEKLLKYIQFETPVTSINKCPNFSTTGKWEVTEKHGKETA
 DATMICSGHIFPHVPKDSFPLNRFKGCFFHSRDYKEPGIWKGRVLIIGLNSGCDIAAELSHVAQKV
 TISSRSGSWMSRVWDDGYPWDMVVLTRFQTLKNNLPTAISDWWYTRQMNARFKHENYGLVPLNRTLK
 EPVFNDELPARILCGMVTIKPNVKEFTETSAVFEDGTMFEAIDCVIFATGYGYAYPFLDDSIKSRNNEV
 TLYKGVFPQLEKPTMAVIGLVQSLGATIPITDLQARWAAQVIKGTCTLPSVNDMMDDIDEKMGKFKWY
 GNSTTIQTDYIVYMDELASFIGAKPNLLWFLKDPRLAVEVFFGPCSPYQFRLVGPWKWSGARNAILTQW
 DRSLKPMKTRVSVKQKSCSHFYRLLRLLAVPVLLIALFLVLI

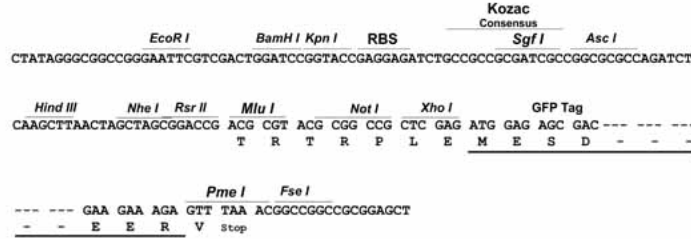
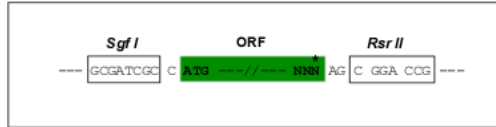
SGP**TRRRLE** - GFP Tag - V

Restriction Sites:

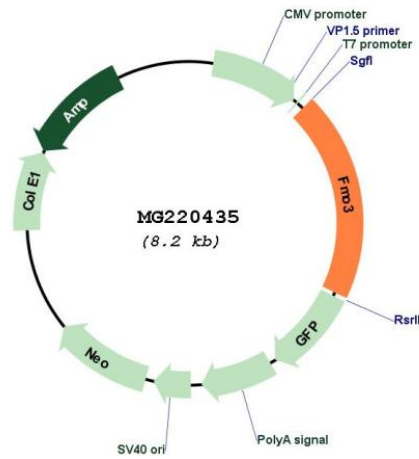
Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



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:	<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_008030.2 , NP_032056.1
RefSeq Size:	2020 bp
RefSeq ORF:	1605 bp
Locus ID:	14262
UniProt ID:	P97501
Cytogenetics:	1 70.34 cM
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]