

## Product datasheet for **RC226524**

### FMO5 (NM\_001144829) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	FMO5 (NM_001144829) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FMO5
Synonyms:	hBVMO1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC226524 representing NM\_001144829  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGACTAAGAAAAGAATTGCTGTGATTGGGGAGGAGTGAGCGGGCTCTCTCCATCAAGTGCTGCGTAG  
 AAGAAGGCTTGGAACTGTCTGCTTTGAAAGACTGATGACATCGAGGGCTCTGGAGGTCCAGGAAAA  
 TCCTGAAGAAGGAAGGGCCAGTATTTACAAATCAGTGATCATCAATACTTCTAAAGAGATGATGTCTTC  
 AGTGACTATCCAATCCCAGATCATTATCCCACTCATGCATAATGCCAGGTCCTGGAGTATTTAGGA  
 TGTATGCCAAAGAATTTGACCTTCTAAAGTATATTCGATTTAAGACCACTGTGTGCAAGTGAAGAAGCA  
 GCCTGATTTTCCACTTCAGGCCAATGGGAAGTGGTCACTGAATCTGAAGGAAAAAGGAGATGAATGTC  
 TTTGATGGAGTCATGGTTTGCCTGGCCATCACACCAATGCTCATCTACCTCTGGAAAGCTTCCCTGGAA  
 TTGAGAAGTTCAAAGGGCAGTACTTCCACAGTCGAGACTATAAGAACCCAGAGGGATTACTGGAAAGAG  
 AGTCATTATAATTGGCATTGGGAATTCTGGAGGGGATCTGGCTGTAGAGATTAGCCAAACAGCCAAGCAG  
 GTTTTCCCTCAGCACCAGGAGAGGGGCTTGATCCTGAATCGTGTAGGGGACTACGGATATCTGCTGATG  
 TGTGTTCTCTTCTCGACTTACACATTTATATGGAAGATCTGTGGCCAATCATTAGCAAACAAATATT  
 GGAAAAAAGATAAACCAAAGGTTTGACCATGAAATGTTTGGCCTGAAGCCTAAACACAGAGCTCTGAGT  
 CAGCATCCAACCTTAAATGATGACCTGCCAAATCGTATCATTTCTGGCTTGGTAAAAGTAAAAGGAAATG  
 TGAAGGAATTCACGGAGACAGCTGCCATTTGAGGATGGCTCCAGGGAGGATGACATTGATGCTGTTAT  
 CTTTGGCACAGGCTATAGCTTTGACTTTCCGTTTCTGGAAGATCCGTCAAAGTGGTCAAAAACAAGATA  
 TCCCTGTATAAAAAGGTCTTCCCTCCTAACCTGAAAAGGCCAACTTTGCAATCATAGGCTTGATTCAGC  
 CCTTAGGAGCCATTATGCCATTTCCAGAGCTCCAAGGACGCTGGGCCACTCAGGATTTTAAAGGTCTAAA  
 GACATTGCCCTCACAGAGTGAAATGATGGCAGAAATATCTAAAGCTCAAGAGGAAATTGACAAAAGTCTA  
 ACCATGAGAAAAACATCAGACAAACCAAGTTGAGAATATTCTACAAATACCTGACTACCTCAAAACTG  
 TCAAGATCATCAACAAAGAAAGTCTGAGAAATTGTCCCGAATAAAGGGCCTAAGGAGACA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC226524 representing NM\_001144829  
 Red=Cloning site Green=Tags(s)

MTKKRIAVIGGGVSGLSSIKCCVEEGLEPVCFERTDDIGGLWRFQENPEEGRASIYKSVIINTSKEMMCF  
 SDYPIPDHYPNFMHNAQVLEYFRMYAKEFDLLKYIRFKTTVCSVKKQPDFATSGQWEVVTSEGGKEMNV  
 FDGVMVCTGHHTNAHLPLESFPGIEKFKGQYFHSRDYKNPEGFTGKRVIIGIGNSGGDLAVEISQTAKQ  
 VFLSTRRGAWILNRVDYGYPADVLFSSRLTHFIWKICGQSLANKYLEKKINQRFDHEMFLKPKHRALS  
 QHPTLNDDLPNRIISGLVKVKNVKEFTEAAIFEDGSREDDIDAVIFATGYSFDFPFLEDSVKVVKNKI  
 SLYKVFPPNLERPTLAIIGLIQPLGAIMPISELQGRWATQVFKLKTLPQSSEMMAEISKAQEEIDKSL  
 TMRKTSKPKLKNILQIPDYLKVKIINKESLRNCPGIKPKET

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8061\\_g05.zip](https://cdn.origene.com/chromatograms/mk8061_g05.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



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

**ACCN:** NM\_001144829

**ORF Size:** 1392 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\\_001144829.1](#), [NP\\_001138301.1](#)
**RefSeq ORF:** 1395 bp

**Locus ID:** 2330

**UniProt ID:** [P49326](#)
**Cytogenetics:** 1q21.1

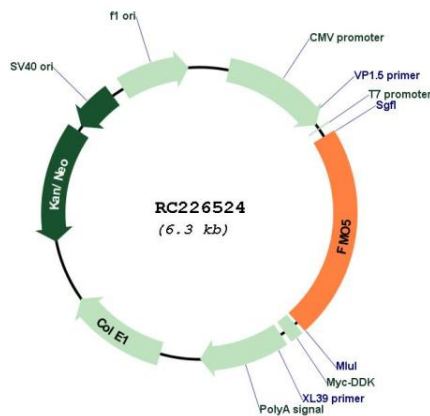
**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Drug metabolism - cytochrome P450

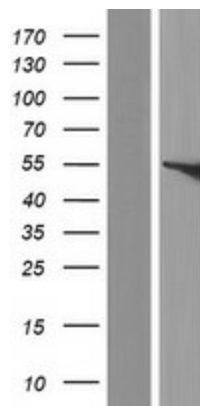
**MW:** 52.3 kDa

**Gene Summary:** Metabolic N-oxidation of the diet-derived amino-trimethylamine (TMA) is mediated by flavin-containing monooxygenase and is subject to an inherited FMO3 polymorphism in man resulting in a small subpopulation with reduced TMA N-oxidation capacity resulting in fish odor syndrome Trimethylaminuria. Three forms of the enzyme, FMO1 found in fetal liver, FMO2 found in adult liver, and FMO3 are encoded by genes clustered in the 1q23-q25 region. Flavin-containing monooxygenases are NADPH-dependent flavoenzymes that catalyzes the oxidation of soft nucleophilic heteroatom centers in drugs, pesticides, and xenobiotics. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2009]

**Product images:**



Circular map for RC226524



Western blot validation of overexpression lysate (Cat# [LY428524]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC226524 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).