

Product datasheet for **MG226165**

Fa2h (NM_178086) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fa2h (NM_178086) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Fa2h
Synonyms:	FAAH; Faxdc1; G630055L08Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG226165 representing NM_178086 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCCCGCTCCGCCCGCCGCTCTTTCACGCCCGCCGAGGTCCAGCGCGCCTGGCGGCCGGTG
CCTGCTGGGTCCGCCCGGGGCCAGCCTCTACGACCTCACCAGCTTCGTGCGGCATCATCCGGGGGCGA
GCAGCTGCTGCTGGCGCGGGCTGGCCAGGACATCAGTGCCGACCTGGATGGCCACCTCACAGACTCC
GACAACGCCCGCCGCTGGCTGGAGCAGTACTATGTGGCGAACTGCGAGCGGACCCGAGGATCCCACAG
AGAATGGTGTGTAGCCTCTGCAGAGACTCAGAAGACAGACCCTGCTCTTGAGCCACAGTTCAAAGTGGT
GGACTGGGACAAGGACCTGGTGGACTGGCAGAAACCTCTGCTGTGGCAGGTGGGCCACTTGGGGGAGAAG
TATGATGAGTGGGTTACCAACCAGTGGCCAGGCCATTTCGCTCTTCCACTCAGACCTCATCGAGGCCCT
TCTCCAAGACTGTCTGGTATAGTGTCCCATCATCTGGGTGCCCTGGTGTGTACCTCAGCTGGTCCTA
CTACCGAACCCCTCACCCAGGACAACATCCGGCTCTTCGCATCACTCACAAGAGAGATTCAATGATGATG
CCGAGTCCGTGTTTCATAGGCCCTCTTTGTGCTGGGCATGCTTTTTGGACCTTTGTGGAATACGTATCC
ACCGCTTCCTGTTCATATGAAGCCCCCAGCAACAGCCATTACCTCATCATGTTGCATTTTGTGTCATGCA
CGGCCAGCACCACAAGGCACCGTTTGTGGCTCCCGTCTGGTCTTCCCCCAGTGCCAGCCTCCCTAGTG
ATTGCCCTTTCTATGTGTTCTGCGGCTCATTCTGCCTGAGACCGTGGGAGGCATCATCTTTGCTGGGG
GTCTCCTGGGCTATGTCCTCTATGACATGACACATTACTACCTGCACTTCGGCTCTCCACACAAGGGCTC
CTACCTGTACAACATGAAGGCCACCATGTCAAGCATCACTTCGAATACCAGAAATCAGGGTTTGGCATC
AGCACTAAACTGTGGATTACTTTTTCCACACCCTCATTCCAGAGGAAGCCACCCGAAGATGCAG

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG226165 representing NM_178086
 Red=Cloning site Green=Tags(s)

MAPAPPPAASFTPAEVQRRLAAGACWVRGASLYDLTSFVRHHPGGEQLLLARAGQDISADLDGPPHRHS
 DNARRWLEQYYVGELRADPQDPTENGAVASAETQKTDPALEPQFKVVDWDKDLVDWQKPLLWQVGHLEK
 YDEWVHQPVARPIRLFHSDLIEAFSKTVWYSVPIIWWPLVLYLWSYRYRTLTDQNIIRLFASLTREYSMM
 PESVFIGLFLVGLFWTFVEYVIHRFLFHMKPPSNSHYLIMLHFVMHGQHHKAPFDGSRLVFPPVPASLV
 IAFFYVFLRLILPETVGGIIFAGGLLGYLYDMTHYYLHFGSPHKGSYLNMKAHHVKHHFEYQKSGFGI
 STKLWDYFFHTLIPEEAHPKMQ

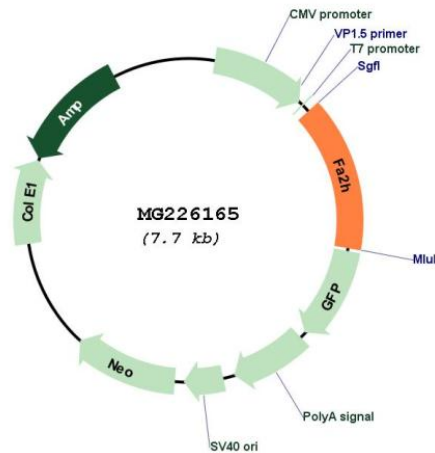
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_178086

ORF Size:	1116 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_178086.3 , NP_835187.2
RefSeq Size:	2492 bp
RefSeq ORF:	1119 bp
Locus ID:	338521
UniProt ID:	Q5MPP0
Cytogenetics:	8 E1
Gene Summary:	Catalyzes stereospecific hydroxylation of free fatty acids at the C-2 position to produce (R)-2-hydroxy fatty acids, which are building blocks of sphingolipids and glycosphingolipids common in neural tissue and epidermis (PubMed:15658937, PubMed:16998236). Plays an essential role in the synthesis of galactosphingolipids of the myelin sheath (PubMed:15658937, PubMed:18815260). Responsible for the synthesis of sphingolipids and glycosphingolipids involved in the formation of epidermal lamellar bodies, critical for skin permeability barrier (By similarity). Participates in the synthesis of glycosphingolipids and a fraction of type II wax diesters in sebaceous gland, specifically regulating hair follicle homeostasis (PubMed:21628453). Involved in the synthesis of sphingolipids of plasma membrane rafts, controlling lipid raft mobility and trafficking of raft-associated proteins (PubMed:22517924).[UniProtKB/Swiss-Prot Function]