

## Product datasheet for **RG202093**

### FA2H (NM\_024306) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	FA2H (NM_024306) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	FA2H
Synonyms:	FAAH; FAH1; FAXDC1; SCS7; SPG35
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG202093 representing NM_024306 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCCCGCTCCGCCCGCCGCTCCTTCTCGCCCTCCGAGGTCCAGCGGCGCCTGGCGGCCGGCG  
CGTGCTGGGTCCGCCCGGGGCCCGCTCTACGACCTCTCCAGCTTCGTGCGGCACCACCCGGGGGCGA  
GCAGCTGTGCGGGCCAGGGCGGCCAGGACATCAGCGCCGACCTGGACGGGCGCCGCACAGGCACTCG  
GCCAACCGCGCCGCTGGCTGGAGCAGTACTACGTGGGAGAGCTCCGCGGGGAGCAGCAGGGCTCCATGG  
AGAACGAGCCTGTAGCCCTTGAGGAACTCAGAAGACAGATCCTGCTATGGAACCACGGTTCAAAGTGGT  
GGATTGGACAAGGACCTGGTGGACTGGCGAAAGCCTCTCCTGTGGCAGGTGGGCCACTTGGGAGAGAAG  
TACGATGAGTGGGTTACCCAGCCGGTGACCAGGCCATCCGCTCTTCCACTCAGACCTCATTGAGGGCC  
TCTCTAAGACTGTCTGGTACAGTGTCCCATCATCTGGGTGCCCTGGTGTGTATCTCAGCTGGTCCTA  
CTACCGAACCTTTGCCAGGGCAACGTCCGACTCTTACAGTCAATTTACAACAGAGTACACGGTGGCAGTG  
CCCAAGTCCATGTTCCCGGGCTCTTATGCTGGGGACATTCTCTGGAGCCTCATCGAGTACCTCATCC  
ACCGCTTCTGTCCACATGAAGCCCCCAGCGACAGCTATTACCTCATCATGCTGCACTTCGTGATGCA  
CGGCCAGCACCACAAGGCACCTTCGACGGCTCCCGCTGGTCTTCCCCCTGTGCCAGCCTCCCTGGTG  
ATCGGGCTTTCTACTTGTGCATGCAGTCATCCTGCCGAGGCAGTAGGGGGCACTGTGTTTGGGGGG  
GCCCTCTGGGCTACGTCCTCTATGACATGACCCATTACTACCTGCACTTTGGCTCGCCGACAAGGGCTC  
CTACCTGTACAGCCTGAAGGCCACCACGTCAAGCACCCTTTGCACATCAGAAGTCAGGATTTGGTATC  
AGCACTAAATTGTGGATTACTGTTCCACACCCTCACTCCAGAGAAACCCACCTGAAGACGCAG

**ACGGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG202093 representing NM\_024306  
 Red=Cloning site Green=Tags(s)

MAPAPPPAASFSPSEVQRRRLAAGACWVRRGARLYDLSSFVRHHPGGEQLLRARAGQDISADLDGPPHRHS  
 ANARRWLEQYYVGELRGEQQGSMENEPVALEETQKTDPAPEPRFKVVDWDKDLVDWRKPLLWQVGHLEK  
 YDEWVHQPVTRPIRLFHSDLIEGLSKTVWYSVPIIWWPLVLYLSWSYYRTFAQGNVRLFTSFTTEYTVAV  
 PKSMFPGLFMLGTFLWSLIEYL IHRFLFHKPPSDSYLLIMLHFVMHGQHHKAPFDGSRLVFPPVPASLV  
 IGVFYLCMQLILPEAVGGTVFAGLLGYVLYDMTHYYLHFGSPHKGSYLYSLKAHHVKKHFAHQKSGFGI  
 STKLWDYCFHTLTPEKPHLKTQ

TRTRPLE – GFP Tag – V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_024306

**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:**

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\\_024306.5](#)

**RefSeq Size:** 2419 bp

**RefSeq ORF:** 1119 bp

**Locus ID:** 79152

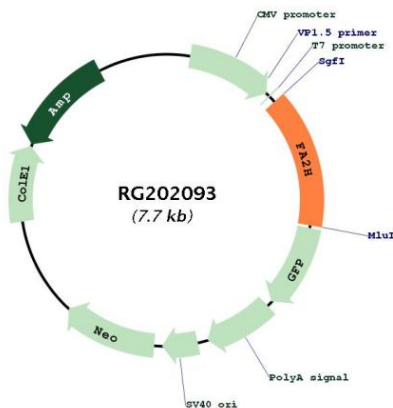
**UniProt ID:** [Q7L5A8](#)

**Cytogenetics:** 16q23.1

**Protein Families:** Transmembrane

**Gene Summary:** This gene encodes a protein that catalyzes the synthesis of 2-hydroxysphingolipids, a subset of sphingolipids that contain 2-hydroxy fatty acids. Sphingolipids play roles in many cellular processes and their structural diversity arises from modification of the hydrophobic ceramide moiety, such as by 2-hydroxylation of the N-acyl chain, and the existence of many different head groups. Mutations in this gene have been associated with leukodystrophy dysmyelinating with spastic paraparesis with or without dystonia.[provided by RefSeq, Mar 2010]

### Product images:



Circular map for RG202093