

Product datasheet for RC202093

FA2H (NM_024306) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FA2H (NM_024306) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FA2H
Synonyms:	FAAH; FAH1; FAXDC1; SCS7; SPG35
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202093 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCCCGCTCCGCCCGCCGCTCCTTCTCGCCCTCCGAGGTCCAGCGGCGCCTGGCGGCCGGCG
CGTGCTGGGTCCGCCCGGGGCCCGCTCTACGACCTCTCCAGCTTCGTGCGGCACCACCCGGGGGCGA
GCAGCTGTGCGGGCCAGGGCGGCCAGGACATCAGCGCCGACCTGGACGGGCCCGCCACAGGCACTCG
GCCAACGCGCGCCGCTGGCTGGAGCAGTACTACGTGGGAGAGCTCCGCGGGGAGCAGCAGGGCTCCATGG
AGAACGAGCCTGTAGCCCTTGAGGAACTCAGAAGACAGATCCTGCTATGGAACCACGGTTCAAAGTGGT
GGATTGGGACAAGGACCTGGTGGACTGGCGAAAGCCTCTCCTGTGGCAGGTGGGCCACTTGGGAGAGAAG
TACGATGAGTGGGTTACCCAGCCGGTGACCAGGCCATCCGCTCTTCCACTCAGACCTCATTGAGGGCC
TCTCTAAGACTGTCTGGTACAGTGTCCCATCATCTGGGTGCCCTGGTGTGTATCTCAGCTGGTCCTA
CTACCGAACCTTTGCCAGGGCAACGTCGACTCTTACGTCATTTACAACAGAGTACACGGTGGCAGTG
CCCAAGTCCATGTTCCCGGGCTCTTATGCTGGGGACATTCTCTGGAGCCTCATCGAGTACCTCATCC
ACCGCTTCCTGTCCACATGAAGCCCCCAGCGACAGCTATTACCTCATCATGCTGCACTTCGTGATGCA
CGGCCAGCACCACAAGGCACCTTCGACGGCTCCCGCTGGTCTTCCCCCTGTGCCAGCCTCCCTGGTG
ATCGGGCTTTCTACTTGTGCATGCAGTCATCCTGCCGAGGACAGTGGGGGCACTGTGTTTGGGGGG
GCCCTCTGGGCTACGTCCTCTATGACATGACCCATTACTACCTGCACTTTGGCTCGCCGACAAGGGCTC
CTACCTGTACAGCCTGAAGGCCACCACGTCAGCACCACCTTTGCACATCAGAAGTCAGGATTTGGTATC
AGCACTAAATTGTGGATTACTGTTCCACACCCTCACTCCAGAGAAACCCACCTGAAGACGCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC202093 protein sequence
Red=Cloning site Green=Tags(s)

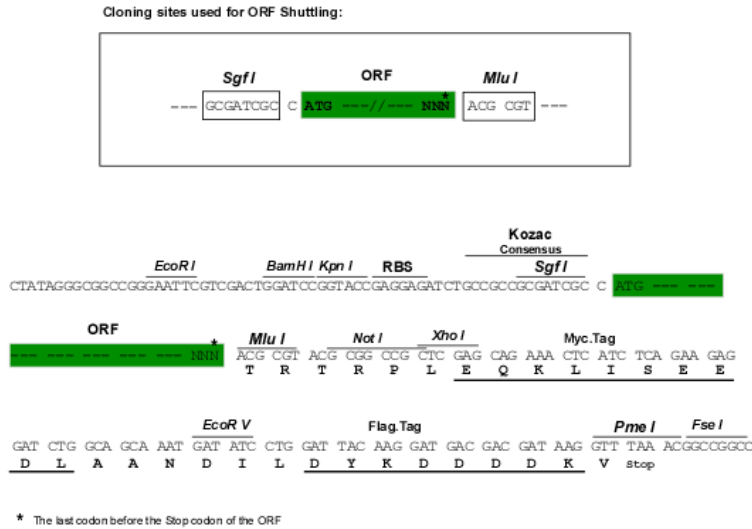
MAPAPPPAASFSPSEVQRRLAAGACWVRRGARLYDLSSFVRHHPGGEQLLRARAGQDISADLDGPPHRHS
 ANARRWLEQYYVGELRGEQQGSMENEPVALEETQKTDPAPEPRFKVVDWDKDLVDWRKPLLWQVGHGK
 YDEWVHQPVTRPIRLFHSDLIEGLSKTVWYSVPIIWWPLVLYLWSYRYRTFAQGNVRLFTSFTTEYTVAV
 PKSMFPGFLFMLGTFLWSLIEYL IHRFLFHMKPPSDSYLLIMLHFVMHGQHHKAPFDGSRVFPVPPASLV
 IGVFYL CMQLILPEAVGGTVFAGGLLGYVLYDMTHYYLHFGSPHKGSYLYSLKAHHVKHHFAHQKSGFGI
 STKLWDYCFHTLTPEKPHLKTQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6305_c10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_024306

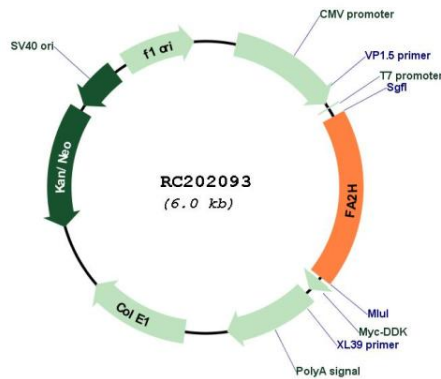
ORF Size: 1116 bp

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](#)

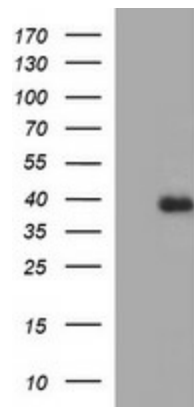
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

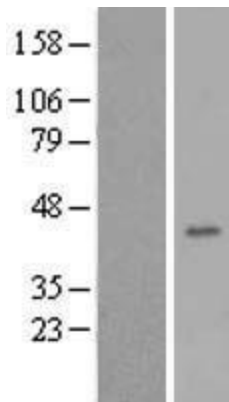
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_024306.5
RefSeq Size:	2450 bp
RefSeq ORF:	1119 bp
Locus ID:	79152
UniProt ID:	Q7L5A8
Cytogenetics:	16q23.1
Protein Families:	Transmembrane
MW:	42.8 kDa
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:


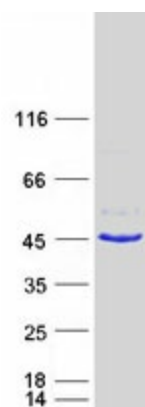
Circular map for RC202093



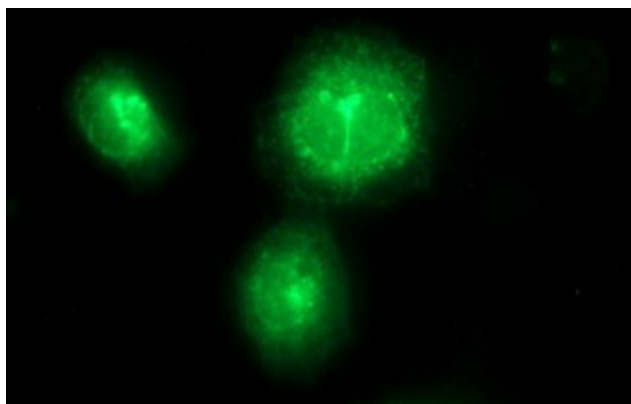
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY FA2H (Cat# RC202093, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-FA2H (Cat# [TA506818]). Positive lysates [LY411325] (100ug) and [LC411325] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY411325]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202093 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FA2H protein (Cat# [TP302093]). The protein was produced from HEK293T cells transfected with FA2H cDNA clone (Cat# RC202093) using MegaTran 2.0 (Cat# [TT210002]).



Immunofluorescent staining of COS7 cells transiently transfected with pCMV6-ENTRY FA2H (RC202093) by using Anti-FA2H mouse monoclonal antibody ([TA506818]) at 1:100 dilutions.