

Product datasheet for **MR207091**

Fads2 (NM_019699) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fads2 (NM_019699) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Fads2
Synonyms:	2900042M13Rik; Fadsd2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR207091 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGGAAGGAGGTAACCAGGGAGAGGGGAGCACCCAGCGCCAGGCTCCGATGCCACCTTCCGTTGGG
 AGGAGATTCAGAAGCACAACTGCGCACCGACCGGTGGCTCGTCATCGACCGCAAGGTCTACAACGTTAC
 CAAATGGTCCCAGCGGCACCCGGGGGCCACCGTGTCTCGGACACTATTCGGGAGAAGATGCTACGGAT
 GCCTTCGGTGCCTTCCATCTGGACCTGGACTTCGTGGCAAGTCTTGAAGCCCCGCTGATTGGTGAGC
 TGGCCCCAGAGGAGCCCAGCCTGGACCGTGGCAAAAGCTCTCAGATCACCGAGGACTTCAGGGCCCTGAA
 GAAGACTGCTGAGGACATGAACCTCTTCAAACCAACCACCTGTTCTTCTTCTCCTCCTGTCCCACATC
 ATCGTCATGGAAAGCCTTGCTGGTTCATCCTCTCGTACTTCGGCACTGGCTGGATTCTACCTCGTCA
 CAGCCTTTGCTCGCTACCTCTCAGGCCAAGCTGGATGGCTGCAACATGACTATGGCCACCTTTCTGT
 CTATAAGAAATCCATATGGAACACGTTGTCCACAAGTTGTCTTGGCCACTTAAAGGGTGCCTCAGCC
 AACTGGTGAACACCGACATTTCCAACACCATGCCAAGCCAACATCTCCACAAGGACCCGGACATAA
 AGAGCCTGCATGTGTTTGTCTTGGCGAGTGGCAGCCCCTTGAGTATGGCAAGAAGAAGTGAATACCT
 GCCCTACAACCACCAGCATGAATACTTCTTCTGATCGGACCGCCGCTGCTCATCCCTATGTACTCCAG
 TACCAGATCATATGACAATGATCAGCCGAGGGACTGGTGGACTTGGCTTGGGCCATCAGCTACTATA
 TGCGTTTCTTCTACACCTACATCCCTTTCTACGGCATCTTGGGAGCCCTGGTTTTCTCACTTTATCAG
 GTTCTGGAGAGCCACTGGTTTGTGTGGTCCACAGATGAACCACCTTGTCTGGAGATTGATCTTGTAT
 CACTACCGGACTGGTTCAGCAGCCAGCTGGCAGCCACCTGCAATGTGGAGCAGTCTTCTTCAATGACT
 GGTTCAGCGGGCACCTCAATTTCCAGATTGAGCACCCACCTTTCCCACTATGCCACGTACAACCTGCA
 CAAGATTGCCCCACTGGTGAAGTCTCTCTGCGCCAAGCATGGCATTGAATACCAGGAGAAGCCGTTGCTG
 AGGGCCCTGATCGACATTGTGAGTTCAGTGAAGAAGTCTGGGAGCTGTGGCTGGATGCTTACCTCCATA
 AA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR207091 protein sequence
 Red=Cloning site Green=Tags(s)

MGKGGNQEGSTERQAPMPTFRWEEIQKHNLRTDRWLVIDRKVYNVTKWSQRHPGGHRVIGHYSGEDATD
 AFRAFHLDLDFVGKFLKPLLI GELAPEEPSLDRGKSSQITEDFRALKKTAEDMNLFKTNHLFFLLLSHI
 IVMESLAWFILSYFGTGWIP TLVAFVLATSQAQAGWLQHDYGHLSVYKKSINWVHVHKFVIGHLKGASA
 NWWNHRHFQHHAKPNI FHKDPDIKSLHVFLGEWQPLEYGKKLKYLPYNHQHEYFFLIGPPLLI PMYFQ
 YQIIMTISRDRWDLAWAISYYMRFFYTYIPFYGILGALVFLNFI RFLSHWFVWVTQMNHLVMEIDLD
 HYRDWFSQLAATCNVEQSFFNDWFSGHLNFQIEHHLFPTMPRHNLHKIAPLVKSLCAKHGIEYQEKP LL
 RALIDIVSSLKSGELWLDAYLHK

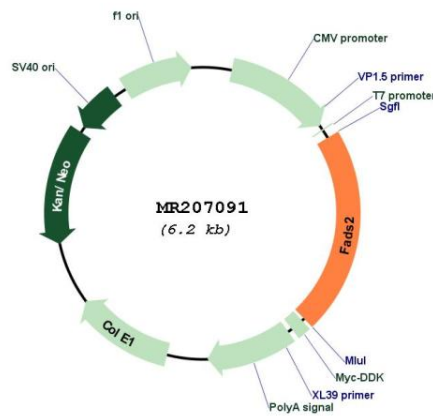
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-Mlul

Cytogenetics:	19 A
MW:	52.4 kDa
Gene Summary:	Acts as a fatty acyl-coenzyme A (CoA) desaturase that introduces a cis double bond at carbon 6 of the fatty acyl chain. Involved in biosynthesis of highly unsaturated fatty acids (HUFA) from the essential polyunsaturated fatty acids (PUFA) linoleic acid (LA) (18:2n-6) and alpha-linolenic acid (ALA) (18:3n-3) precursors. Catalyzes the first and rate limiting step in this pathway which is the desaturation of LA (18:2n-6) and ALA (18:3n-3) into gamma-linoleate (GLA) (18:3n-6) and stearidonate (18:4n-3), respectively (PubMed:9867867). Subsequently, in the biosynthetic pathway of HUFA n-3 series, desaturates tetracosapentaenoate (24:5n-3) to tetracosahexaenoate (24:6n-3), which is then converted to docosahexaenoate (DHA)(22:6n-3), an important lipid for nervous system function (By similarity). Desaturates palmitate to produce the mono-unsaturated fatty acid sapienate, the most abundant fatty acid in sebum (By similarity). Also desaturates (11E)-octadecenoate (trans-vaccenoate)(18:1n-9), a metabolite in the biohydrogenation pathway of LA (18:2n-6) (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR207091