

## Product datasheet for **RG238081**

### FADS2 (NM\_001281502) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	FADS2 (NM_001281502) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	FADS2
Synonyms:	D6D; DES6; FADSD6; LLCDL2; SLL0262; TU13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG238081 representing NM_001281502. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
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GCCCGCTGGTGAAGTCTCTATGTGCCAAGCATGGCATTGAATACCAGGAGAAGCCGCTACTGAGGGCC
CTGCTGGACATCATCAGGTCCCTGAAGAAGTCTGGGAAGCTGTGGCTGGACGCCTACCTTCAAAA
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```



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**Protein Sequence:** >Peptide sequence encoded by RG238081  
 Blue=ORF Red=Cloning site Green=Tag(s)

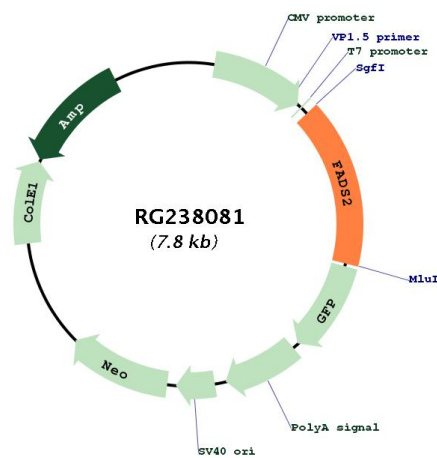
MTREPPGCRRVNSLMLYLRSITSHRSSHPERWATSSQDAFRAFHPDLEFVGKFLKPLLIGELAPEEPS  
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 TSAQAGWLQHDYGHLSVYRKPKNHLVHKFVIGHLKGASANWNHRHFQHHAKPNIFHKDPDVNMLHV  
 FVLGEWQPIEYGGKKLKYLPYNHQHEYFLIGPPLLIPMYFYQYQIIMTMIVHKNWVDLAWAVSYIRFF  
 ITYIPFYGILGALLFLNFRFLESHWFVWVTQMNHIVMEIDQEA YRDWFSQLTATCNVEQSFNDWFS  
 GHLNFQIEHHLFPTMPRHNLHKIAPLVKSLCAKHGIEYQEKPLLRALLDIIIRSLKSGKWLDAYLHK  
**TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV**  
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 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



<b>ACCN:</b>	NM_001281502
<b>ORF Size:</b>	1239 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>RefSeq:</b>	<a href="#">NM_001281502.1</a> , <a href="#">NP_001268431.1</a>
<b>RefSeq Size:</b>	3094 bp
<b>RefSeq ORF:</b>	1242 bp
<b>Locus ID:</b>	9415
<b>UniProt ID:</b>	<a href="#">O95864</a>
<b>Cytogenetics:</b>	11q12.2
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	alpha-Linolenic acid metabolism, Biosynthesis of unsaturated fatty acids, PPAR signaling pathway
<b>MW:</b>	49.3 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is a member of the fatty acid desaturase (FADS) gene family. Desaturase enzymes regulate unsaturation of fatty acids through the introduction of double bonds between defined carbons of the fatty acyl chain. FADS family members are considered fusion products composed of an N-terminal cytochrome b5-like domain and a C-terminal multiple membrane-spanning desaturase portion, both of which are characterized by conserved histidine motifs. This gene is clustered with family members at 11q12-q13.1; this cluster is thought to have arisen evolutionarily from gene duplication based on its similar exon/intron organization. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2013]