

Product datasheet for **RC220971**

DGAT2L4 (AWAT2) (NM_001002254) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DGAT2L4 (AWAT2) (NM_001002254) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DGAT2L4
Synonyms:	ARAT; DC4; DGAT2L4; MFAT; WS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC220971 representing NM_001002254 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTCTTGCCCTCTAAGAAGGACCTCAAGACTGCCCTGGATGTCTTTGCTGTTTTCCAGTGGTCTTCA
GTGCCCTTGCTTATCACAACCACTGTGATTGCTGTCAACCTCTACCTGGTGGTGTTCACACCATACTGGCC
TGTCACTGTGCTTATTCTTACCTGGCTGGCTTTGACTGGAAGACCCCTCAGCGAGGCGGCCCGGTTT
ACCTGTGTGAGGCACTGGCGCTGTGAAACACTACAGCGATTATTTCCCTCTCAAGCTTCTGAAGACTC
ATGACATCTGCCCGAGCCGCAACTACATCCTCGTCTGCCACCCTCATGGGCTCTTTGCCATGGATGGTT
TGGCCACTTTGCCACAGAGGCTCAGGCTTCTCCAAGATATTTCCCTGGCATCACCCCTTACATACTCACA
CTGGGAGCCTTTTTCTGGATGCCTTTCCCTCAGAGAATATGTAATGTCTACAGGGCCTGCTCTGTGAGTC
GATCCTCCATTGACTTTCTGCTGACTCATAAAGGCACAGGCAACATGGTCATTGTGGTGATTGGTGGACT
GGCTGAGTGCAGATACAGCCTGCCAGGTTCTTCTACCCTGGTGTGAAGAACCGGTCTGGCTTTGTGCGC
ATGGCCCTTCAGCATGGGGTGCCTCTAATACCTGCCTATGCCTTTGGGGAGACGGACCTCTATGATCAGC
ACATTTTCACTCCTGGTGGCTTTGTCAACCGCTTCCAGAAGTGGTCCAGAGCATGGTTCACATCTACCC
TTGTGCTTTCTATGGACGTGGCTTACCAAGAAGTCCCTGGGGCCTTCTGCCCTATAGTCGGCCTGTAACC
ACCATCGTCGGGGAGCCTCTACCAATGCCAAGATTGAGAATCCAAGCCAGGAGATCGTGGCTAAATATC
ACACACTATATTGATGCCCTACGTAAGTGTGGTGGCAGCATAAGACCAAGTTTGGTATCTCAGAGAC
CCAGGAGCTGGAGATAATT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC220971 representing NM_001002254
Red=Cloning site Green=Tags(s)

MLLPSKKDLKTALDVFVQWFSALLITTTVIAVNLVYVFTPYWPVTVLILTWLAFDWKTPQRGGRRF
 TCVRHWRWLWKHYSDYFPLKLLKTHDICPSRNYILVCHPHGLFAHGWFHGFATEASGFSKIIFGITPYILT
 LGAFFWMPFLREYVMSTGACSVSRSSIDFLLTHKGTGMVIVVIGGLAECRYSLPGSSTLVLKNRSGFVR
 MALQHGVPPLIPAYAFGETDLYDQHIFTPGGFVNRFAQWFQSMVHIYPCAFYGRGFTKNSWGLLPYSRPVT
 TIVGEPLPMPKIENPSQEIVAKYHTLYIDALRKLFDQHKTKFGISETQELEII

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6101_h02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001002254

ORF Size: 999 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_001002254.1](#), [NP_001002254.1](#)

RefSeq Size: 2124 bp

RefSeq ORF: 1002 bp

Locus ID: 158835

UniProt ID: [Q6E213](#)

Cytogenetics: Xq13.1

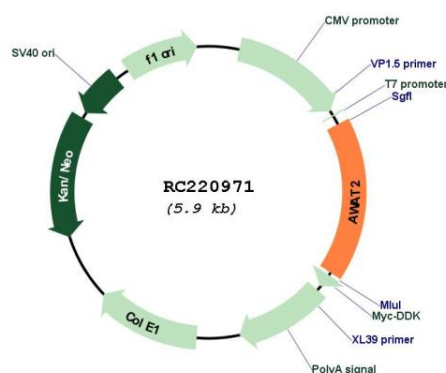
Protein Families: Transmembrane

Protein Pathways: Glycerolipid metabolism, Metabolic pathways, Retinol metabolism

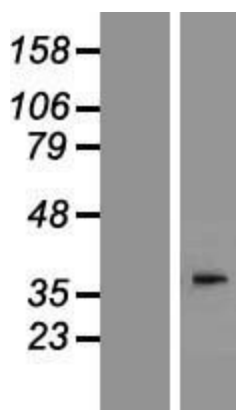
MW: 37.9 kDa

Gene Summary: This gene encodes an enzyme belonging to the diacylglycerol acyltransferase family. This enzyme produces wax esters by the esterification of long chain (or wax) alcohols with acyl-CoA-derived fatty acids. It functions in lipid metabolism in the skin, mostly in undifferentiated peripheral sebocytes. This enzyme may also have acyl-CoA:retinol acyltransferase activities, where it catalyzes the synthesis of diacylglycerols and retinyl esters. [provided by RefSeq, May 2010]

Product images:



Circular map for RC220971



Western blot validation of overexpression lysate (Cat# [LY424189]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220971 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).