

Product datasheet for **RC220595**

DGAT1 (NM_012079) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DGAT1 (NM_012079) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DGAT1
Synonyms:	ARAT; ARGP1; DGAT; DIAR7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC220595 representing NM_012079
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGCGACCGCGCAGCTCCCGCGCCGGAGGACAGGGTCGCGGCCCTCGAGCCACGGCGCGCGGGG
 CTGCGGGCGCGGAAGAGGAGGTGCGGGACGCCGCTGCGGGCCCGACGTGGGAGCCGCGGGGACGCGCC
 AGCCCCGGCCCCAACAAAGGACGGAGACGCCGGCTGGGACGCGCCACTGGGAGCTGAGGTGCCATCGC
 CTGCAGGATTCTTTATTCACTCTGACAGTGGCTTCAAGCACTACCGTGGCATCTGAACTGGTGTGTGG
 TGATGCTGATCTTGAGCAATGCCGGTTATTTCTGGAGAACCTCATCAAGTATGGCATCTGGTGGACCC
 CATCCAGTGGTTTCTCTGTTCCGAAGGATCCCTATAGCTGGCCGCCCATGCCTGGTATTGCGGCC
 AATGTCTTTGCTGTGGCTGCATTCCAGGTTGAGAAGCGCTGGCGGTGGTGCCTGACGGAGCAGGCGG
 GACTGCTGCTGCACGTGGCCAACTGGCCACCATTCTGTGTTCCAGCGGCTGTGGTCTTACTGGTTGA
 GTCTATCACTCCAGTGGGCTCCCTGCTGGCGCTGATGGCGCACACCATCTCTTCTCAAGCTCTTCTCC
 TACCGCGACGTCAACTCATGGTGCCGACAGGCCAGGGCCAAGGCTGCCTCTGCAGGGAAGAAGGCCAGCA
 GTGCTGTGTCGCCCGCACACCGTGAGCTACCCGGACAATCTGACCTACCGCATCTCTACTACTTCTCTT
 CGCCCCACCTTGTGCTACGAGCTCAACTTTCCCCGCTCTCCCCGCATCCGGAAGCGTTTCTGTGCGA
 CGGATCCTTGAGATGCTGTTCTTCAACCAGCTCCAGGTGGGGCTGATCCAGCAGTGGATGGTCCCCACCA
 TCCAGAATCCATGAAGCCCTTCAAGGACATGGACTACTACGCATCATCGAGCGCTCTGAAGCTGGC
 GGTCCCCAATCACCTCATCTGGCTCATCTTCTTACTGGCTCTTCCACTCCTGCCTGAATGCCGTGGCT
 GAGCTCATGCAGTTTGGAGACCGGGAGTTCTACCGGACTGGTGGAACTCCGAGTCTGTACCTACTTCT
 GGCAGAACTGGAACATCCCTGTGCACAAGTGGTGCATCAGACACTTCTACAAGCCATGCTTCGACGGGG
 CAGCAGCAAGTGGATGGCCAGGACAGGGGTGTTCTTGGCCTCGGCCTTCTTCCAGGATACCTGGTGGC
 GTCCCTCTGCGAATGTTCCGCTCTGGCGTTCACGGCATGATGGCTCAGATCCCACTGGCCTGGTTCCG
 TGGGCCGCTTTTTCCAGGGCAACTATGGCAACGCAGCTGTGTGGCTGTCGCTCATCATCGGACAGCCAAT
 AGCCGTTCTCATGTACGTCCAGACTACTAGTGTCAACTATGAGGCCCCAGCGGCAGAGGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220595 representing NM_012079
 Red=Cloning site Green=Tags(s)

MGDRGSSRRRTGSRPSSHGGGPPAAEEEEVRDAAAGPDVGAAGDAPAPAPNKDGDAGVSGHWEHRCHR
 LQDSLFSDDSGFSNYRGILNWCVVMLILSNARLFLENLIKYGILVDPIQVVSLFLKDPYSWPAPCLVIAA
 NVFAVAAFQVEKRLAVGALTEQAGLLLVANLILCFPAAVVLLVESITPVGSLALMAHTILFLKLS
 YRDVNSWCRRARAKAASAGKKASSAAAPHTVSYPDNLTYRDLYYFLFAPTLCYELNFPSPRIRKRFLLR
 RILEMLFFTQLQVGLIQQWMPVTIQNSMKPFKMDYSRIERLLKLAVPNHLIWLIFFYWLFHNSCLNAVA
 ELMQFGDREFYRDWNSVSYTFWQNWNIIPVHKWCIRHFYKPLRRGSSKWMARTGVFLASAFFHEYLVV
 VPLRMFRLWAFTGMMAQIPLAWFVGRFFQGNYGNAAVWLSLIIGQPIAVLMYVHDYVYVLYEAPAAEA

TRTRPLEQ**KL**ISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_012079

ORF Size: 1464 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_012079.6](#)
RefSeq Size: 1976 bp

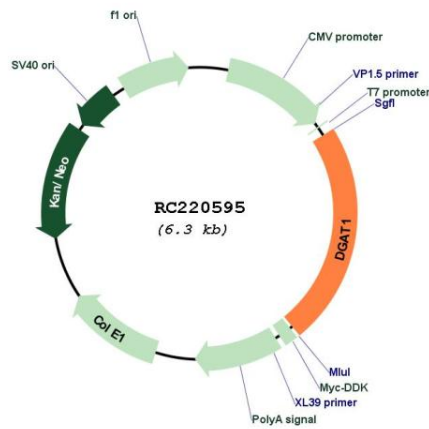
RefSeq ORF: 1467 bp

Locus ID: 8694

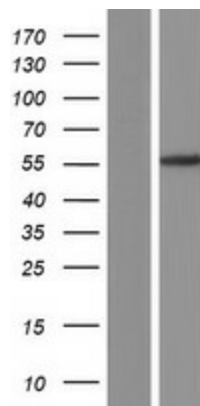
UniProt ID: [O75907](#)

Cytogenetics: 8q24.3
Domains: MBOAT
Protein Families: Transmembrane
Protein Pathways: Glycerolipid metabolism, Metabolic pathways, Retinol metabolism
MW: 55.1 kDa
Gene Summary: This gene encodes a multipass transmembrane protein that functions as a key metabolic enzyme. The encoded protein catalyzes the conversion of diacylglycerol and fatty acyl CoA to triacylglycerol. This enzyme can also transfer acyl CoA to retinol. Activity of this protein may be associated with obesity and other metabolic diseases. [provided by RefSeq, Jul 2013]

Product images:



Circular map for RC220595



Western blot validation of overexpression lysate (Cat# [LY402142]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220595 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).