Product datasheet for RC220026

MBOAT2 (NM_138799) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MBOAT2 (NM_138799) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MBOAT2
Synonyms:	LPAAT; LPCAT4; LPEAT; LPLAT 2; OACT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>RC220026 representing NM_138799
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCACCACCAGCACCACGGGCTCCACCCTGCTGCAGCCCCTCAGCAACGCCGTGCAGCTGCCCATCG
ACCAGGTCAACTTTGTAGTGTGCCAACTCTTTGCCTTGCTAGCAGCCATTTGGTTTCGAACTTATCTACA
TTCAAGCAAAACTAGCTCTTTTATAAGACATGTAGTTGCTACCCTTTTGGGCCTTTATCTTGCACTTTTT
TGCTTTGGATGGTATGCCTTACACTTTCTTGTACAAAGTGGAATTTCCTACTGTATCATGATCATCATAG
GAGTGGAGAACATGCACAATTACTGCTTTGTGTTTGCTCTGGGATACCTCACAGTGTGCCAAGTTACTCG
AGTCTATATCTTTGACTATGGACAATATTCTGCTGATTTTTCAGGCCCAATGATGATCATTACTCAGAAG
ATCACTAGTTTGGCTTGCGAAATTCATGATGGGATGTTTCGGAAGGATGAAGAACTGACTTCCTCACAGA
GGGATTTAGCTGTAAGGCGCATGCCAAGCTTACTGGAGTATTTGAGTTACAACTGTAACTTCATGGGGAT
CCTGGCAGGCCCACTTTGCTCTTACAAAGACTACATTACTTTCATTGAAGGCAGATCATACCATATCACA
CAATCTGGTGAAAATGGAAAAGAAGAGACACAGTATGAAAGAACAGAGCCATCTCCAAATACTGCGGTTG
TTCAGAAGCTCTTAGTTTGTGGGCTGTCCTTGTTATTTCACTTGACCATCTGTACAACATTACCTGTGGA
GTACAACATTGATGAGCATTTTCAAGCTACAGCTTCGTGGCCAACAAAGATTATCTATCTGTATATCTCT
CTTTTGGCTGCCAGACCCAAATACTATTTTGCATGGACGCTAGCTGATGCCATTAATAATGCTGCAGGCT
TTGGTTTCAGAGGGTATGACGAAAATGGAGCAGCTCGCTGGGACTTAATTTCCAATTTGAGAATTCAACA
AATAGAGATGTCAACAAGTTTCAAGATGTTTCTTGATAATTGGAATATTCAGACAGCTCTTTGGCTCAAA
AGGGTGTGTTATGAACGAACCTCCTTCAGTCCAACTATCCAGACGTTCATTCTCTCTGCCATTTGGCACG
GGGTATACCCAGGATATTATCTAACGTTTCTAACAGGGGTGTTAATGACATTAGCAGCAAGAGCTATGAG
AAATAACTTTAGACATTATTTCATTGAACCTTCCCAACTGAAATTATTTTATGATGTTATAACATGGATA
GTAACTCAAGTAGCAATAAGTTACACAGTTGTGCCATTTGTGCTTCTTTCTATAAAACCATCACTCACGT
TTTACAGCTCCTGGTATTATTGCCTGCACATTCTTGGTATCTTAGTATTATTGTTGTTGCCAGTGAAAAA
AACTCAAAGAAGAAAGAATACACATGAAAACATTCAGCTCTCACAATCCAAAAAGTTTGATGAAGGAGAA
AATTCTTTGGGACAGAACAGTTTTTCTACAACAAACAATGTTTGCAATCAGAATCAAGAAATAGCCTCGA
GACATTCATCACTAAAGCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220026 representing NM_138799
Red=Cloning site Green=Tags(s)

MATTSTTGSTLLQPLSNAVQLPIDQVNFVVCQLFALLAAIWFRTYLHSSKTSSFIRHVVATLLGLYLALF
CFGWYALHFLVQSGISYCIMIIIGVENMHNYCFVFALGYLTVCQVTRVYIFDYGQYSADFSGPMMIITQK
ITSLACEIHDGMFRKDEELTSSQRDLAVRRMPSLLEYLSYNCNFMGILAGPLCSYKDYITFIEGRSYHIT
QSGENGKEETQYERTEPSPNTAVVQKLLVCGLSLLFHLTICTTLPVEYNIDEHFQATASWPTKIIYLYIS
LLAARPKYYFAWTLADAINNAAGFGFRGYDENGAARWDLISNLRIQQIEMSTSFKMFLDNWNIQTALWLK
RVCYERTSFSPTIQTFILSAIWHGVYPGYYLTFLTGVLMTLAARAMRNNFRHYFIEPSQLKLFYDVITWI
VTQVAISYTVVPFVLLSIKPSLTFYSSWYYCLHILGILVLLLLPVKKTQRRKNTHENIQLSQSKKFDEGE
NSLGQNSFSTTNNVCNQNQEIASRHSSLKQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

Sgf I   ORF   Mlu I

--- GCGATCGC C ATG ---//--- NNN ACG CGT ---

Kozac Consensus

EcoR I   BamH I Kpn I   RBS   Sgf I

CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC C ATG --- ---

ORF

--- --- --- --- --- NNN   Mlu I   Not I   Xho I   Myc.Tag
ACG CGT ACG CGG CCG CTC GAG CAG AAA CTC ATC TCA GAA GAG
T   R   T   R   P   L   E   Q   K   L   I   S   E   E

EcoR V   Flag.Tag   Pme I   Fse I
GAT CTG GCA GCA AAT GAT ATC CTG GAT TAC AAG GAT GAC GAC GAT AAG GTT TAA ACGGCCGGCC
D   L   A   A   N   D   I   L   D   Y   K   D   D   D   D   K   V   Stop

* The last codon before the Stop codon of the ORF

ACCN:	NM_138799
ORF Size:	1560 bp

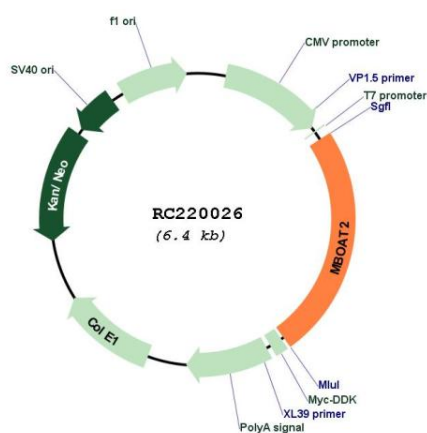|	
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. 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.

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_138799.4
RefSeq Size:	3804 bp
RefSeq ORF:	1563 bp
Locus ID:	129642
UniProt ID:	Q6ZWT7
Cytogenetics:	2p25.1
Domains:	MBOAT
Protein Families:	Transmembrane
MW:	59.3 kDa
Gene Summary:	Acyltransferase which mediates the conversion of lysophosphatidylethanolamine (1-acyl-sn-glycero-3-phosphoethanolamine or LPE) into phosphatidylethanolamine (1,2-diacyl-sn-glycero-3-phosphoethanolamine or PE) (LPEAT activity). Catalyzes also the acylation of lysophosphatidic acid (LPA) into phosphatidic acid (PA) (LPAAT activity). Has also a very weak lysophosphatidylcholine acyltransferase (LPCAT activity). Prefers oleoyl-CoA as the acyl donor. Lysophospholipid acyltransferases (LPLATs) catalyze the reacylation step of the phospholipid remodeling pathway also known as the Lands cycle.[UniProtKB/Swiss-Prot Function]

Product images:

Circular map for RC220026