

Product datasheet for **RC207138**

Lipin 1 (LPIN1) (NM_145693) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lipin 1 (LPIN1) (NM_145693) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lipin 1
Synonyms:	PAP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RC207138 representing NM_145693
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGAATTACGTGGGGCAGTTAGCCGGCCAGGTGTTTGTACCGTGAAGGAGCTCTACAAGGGGCTGAATC
CCGCCACACTCTCAGGGTGCATTGACATCATTGTCATCCGCCAGCCCAATGGAAACCTCCAATGCTCCCC
TTTCCACGTCCGCTTTGGGAAGATGGGGTCTCCTCCGAGAGAAAGTGGTTGACATAGAAATCAAT
GGGAATCTGTGGATTTGCATAGAAATTTGGGAGATAATGGAGAAGCATTGTTTGTCAAGAAACAGATA
ATGATCAGGAAGTTATCCCTATGCACCTGGCCACCTCCCCATCCTGTCAGAAGGAGCTTCGAGAATGGA
ATGCCAGTGAAGGGGCTCTGTGGACAGGATGAGAGGCCTGGACCCAGCAGCCAGCCCAAGTGATC
GCTCCAGCGAGACGCCGTCAAGCAGCTCTGTAGTAAAGAAGAGAAGAAAAGGAGGAGAAAGTACAGC
TGGACAGCCTGAAGAGAGATGACAACATGAACACATCTGAGGATGAGGACATGTTCCCCATCGAGATGAG
CTCGGATGAGGCCATGGAGCTGTGGAGAGCAGCAGAACTTTCCTAATGATATACCTCCATTCCAAGAT
GATATTCCTGAGGAAAACCTCTCCCTGGCTGTGATTTACCTCAGTCAGCCTCATACCCTAATTCGGATA
GAGAGTGGTCACCCACTCCAGTCTTCCGGTCCCGACCTTCAACACCTAAAAGTGATTGAGAATTGGT
CAGCAAGTCCACGGAAAGGACAGGGCAGAAGAACCAGAAATGCTTTGGCTGTGGGGAGAGCTGCCGAG
GCTGCTAAGTCTTCTTCCACACAAGATGAAAGAGTCCAGCCATTGAGCAGTAGAAAAATTTGTGATA
AAAGTCACTTTACAGGCCATTACAGCGAATCTTACAGACTTTTGTAGTACCAATCGCCAACCTCTGGTCGG
TGGGGCACTTTTGGACCAGAACAAGCCTCAGACAGAAATGCAAGTGTGAATGAAGAAGACCTGGAGACC
TTAGGAGCAGCAGCGCCACTCTTGGCCATGATCGAGGAGCTCAAACCCCTCTGCCAGTGTAGTCCAGA
CAGCAACAAGACGGATTCTCTCCAGGAAAAGAGATAAACAAGCCGACATCTTGGTGTGACGGCGT
CTACTTGGATGACCTCACAGACATGGATCCTGAAGTGGCGGCCCTGTATTTCCAAAAACGGAGATCCT
TCCGGACTCGCAAAACATGCAAGCGACAACGGAGCCGGTCCAGCAACCAGTCCCCGAGTCCGTGGGCA
GCTCGGGCGTGGACAGTGGCGTGGAGAGCACCTCGGACGGGCTGAGGGACCTCCCTTCCATCGCCATCTC
CCTCTGCGGGGGCCTCAGCGACCACCGGAGATCACGAAAGATGCATTCTGGAGCAAGCTGTGTATAT
CAACAGTTTGGACAACCCCGCTATTATCGATGACCCCAATCTCGTGGTAAAGATTGGGAGTAAATATT
ATAACTGGACAACAGCAGCACCCCTCCTCTGGCAATGCAGGCCCTCCAGAAACCTTTGCCAAAGGCCAC
TGTGGAATCTATCATGAGGGATAAAATGCCAAAAAGGGAGGAAGATGGTGGTTTTTATGGAGGGGAAGA
AACACCACAATCAAGGAGGAAAGTAAGCCAGAGCAGTGTGGCTGGCAAGGCCCATAGCACGGGAGAGC
AACCGCCGAGCTCAGCTTGGCCACCAGGGTAAAGCATGAATCATCTCCAGTGTAGGAGCGCGCAGC
TGCCAAGCCATCAACGCAGGCCACCTCCCTCTTCTGCCTAATGTGAGTACAAGAAGACTCTCCGGCTG
ACTTCCGAGCAGCTTAAAGCTTGAAGTTGAAGAATGGCCCAACGACGTGGTTTTTCAAGTGCACCACGC
AGTACCAAGGCACGTGCCGCTGTGAGGGCACCATCTATCTGTGGAAGTGGGATGATAAAGTCACTATTTT
TGATATTGATGGGACAATTACCAGATCAGATACTTGGCCACATTTTGGCCACCCTTGGGAAGGATTGG
ACCCATCAGGGCATCGCTAAGCTGTACCATAAAGTGAAGTGGCCAGAAATGGATATAAATTTCTCTACTGTTCTG
CCCGTCCATCGGGATGGCGGACATGACGCGGGGCTACCTGCACTGGGTCAACGAGAGGGGACCGGTGCT
GCCCCAGGGGCCCTGCTGCTGAGTCCCAGCAGCCTTCTCTGCCCTGCACAGAGAAGTGAATGAAAAAG
AAGCCAGAAAAGTTTAAAGTCCAGTGTGACAGACATCAAAAACCTGTTTTTCCCAACACAGAACCCT
TTTATGCTGCTTTTGAACCGACCAGCTGATGTATTATACATAAAGCAAGTAGGAGTGTCTTTGAATAG
AATATTTACCGTCAACCTAAAGGAGAGCTGGTACAGGAACATGCAAGACCAACATCTCTCGTATGTG
AGACTCTGTGAAGTAGTCGACCAGTGTTCCTGTTGCTGAAAAGAAGCCATTCTCAGACTTTCCCTGTT
CGGATACCTTCACTAATTCACCTTTTGGAGAGAGCCACTGCCACCTTTTAAAACAGGACATTCATTC
TGCCTCAGCG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC207138 representing NM_145693
 Red=Cloning site Green=Tags(s)

MNYVQG LAGQVF VTKELYKGLNPATLSGCIDII VIRQPNGNLQCSPFHVRF GKMGLVRSREKVVVDIEIN
 GESVDLHMKLGDNGEAFVQETDNDQEVIPMHLATSPILSEGASRMQC LKRGSVDRMRGLDPSTPAQVI
 APSETPSSSSVVKRRRKRKSQLDSLKRDDNMNTSEDEMFPIEMSSDEAMELLESSRTL PNDIPPFQD
 DIPEENLSLAVIYPQASYPNSDREWSP TSPSGSRPSTPKSDSELVSKSTERTGQKNPEMLWLGELPQ
 AAKSSSPHKMKESPLSSRKICDKSHFQAIHSESSDTFSDQSPTLVGGALLDQNKPQTEMQFVNEEDLET
 LGAAAPLLPMIEELKPPSASVVQTANKTDSPSRKRDKRSRHLGADGVYLDL TDMPEVAALYFPKNGDP
 SGLAKHASDNGARSANQSPQSVGSSGVDSGVESTSDGLRDLPSIAISL CGGLSDHREITKDAFLAQVSY
 QQFVDNPAIIDDPNLVVIGSKYINWTTAAPLLAMQAFQKPLPKATVESIMRDKMPKGGRRWFSWRGR
 NTTIKEESKPEQCLAGKAHSTGEQPPQLSLATRVKHESSSDEERAAAKPSNAGHLLPNVSYKTLRL
 TSEQLSKLKLKNGPNDVVFVTTQYQGT CRCEGTIYLWNWDDKVIISDIDGTITRSDTLGHILPTLGKDW
 THQGI AKLYHKVSQNGYKFLYCSARAIGMADMRGYLHWVNERGT VLPQG P L L S P S S L F S A L H R E V I E K
 KPEKFKVQCLTDIKNLF PNTPEFYAAFGNRPADVYSYKQVGVSLNRIFTV NPKGELVQEHAKTNISSY
 RLCEVDHVHVFLLKRS HSSDFPCSDTF SNFTFWREPLPPFENQDIHSASA

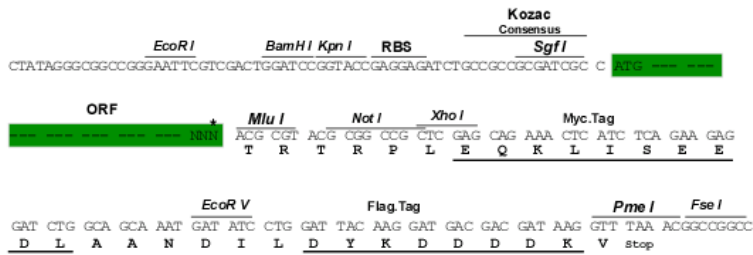
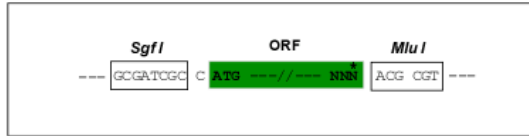
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1837_b04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

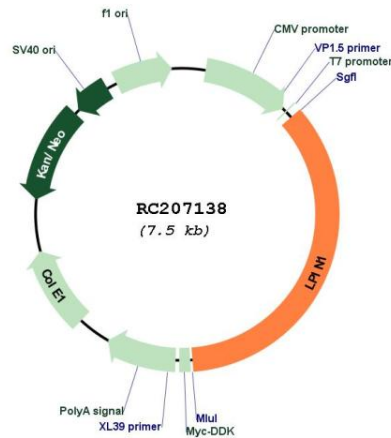


* The last codon before the Stop codon of the ORF

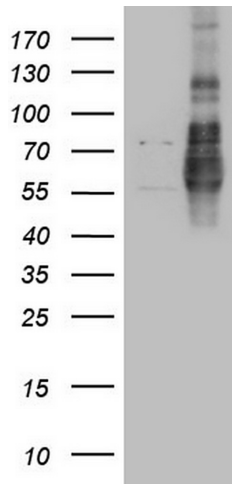
ACCN: NM_145693

ORF Size:	2670 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:	<ol style="list-style-type: none">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_145693.4
RefSeq Size:	5363 bp
RefSeq ORF:	2673 bp
Locus ID:	23175
UniProt ID:	Q14693
Cytogenetics:	2p25.1
Domains:	lipin_N
MW:	98.5 kDa
Gene Summary:	This gene encodes a magnesium-ion-dependent phosphatidic acid phosphohydrolase enzyme that catalyzes the penultimate step in triglyceride synthesis including the dephosphorylation of phosphatidic acid to yield diacylglycerol. Expression of this gene is required for adipocyte differentiation and it also functions as a nuclear transcriptional coactivator with some peroxisome proliferator-activated receptors to modulate expression of other genes involved in lipid metabolism. Mutations in this gene are associated with metabolic syndrome, type 2 diabetes, acute recurrent rhabdomyolysis, and autosomal recessive acute recurrent myoglobinuria (ARARM). This gene is also a candidate for several human lipodystrophy syndromes. [provided by RefSeq, Mar 2017]

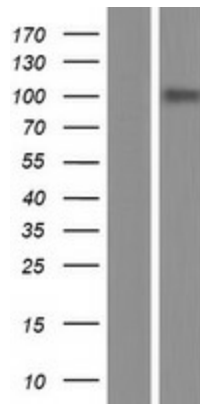
Product images:



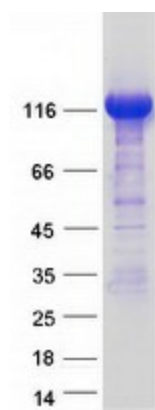
Circular map for RC207138



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY LPIN1 (Cat# RC207138, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-LPIN1 (Cat# [TA805972]). Positive lysates [LY407897] (100ug) and [LC407897] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY407897]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207138 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified LPIN1 protein (Cat# [TP307138]). The protein was produced from HEK293T cells transfected with LPIN1 cDNA clone (Cat# RC207138) using MegaTran 2.0 (Cat# [TT210002]).