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Product datasheet for MG204622

Acot8 (NM_133240) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Acot8 (NM_133240) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Acot8
Synonyms:	PTE-2; Pte1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG204622 representing NM_133240
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCAGCGCCAGAGGGTCTGGGAGATGCTCATGGCGACGCCGACCGCGGCGACCTTTCCGGGGACCTCC
GTAGTGTGCTGGTCACGAGCGTGCTCAACCTCGAGCCGCTAGATGAAGATCTCTACAGAGGAAGGCATTA
CTGGGTACCTACCTCCCAGCGGCTCTTTGGGGGTCAAATTATGGGCCAGGCCCTGGTGGCTGCAGCCAAG
TCTGTGAGTGAAGACGTCCATGTCCACTCCCTGCACTGCTACTTTGTCCGGGCAGGGGACCCGAAAGTGC
CAGTGCTGTACCACGTAGAGAGGATACGGACAGGAGCCAGCTTCTCAGTGCGCGCCGTGAAGGCTGTGCA
GCATGGCAAGGCCATCTTCATCTGCCAGGCCTCCTTCCAGCAGATGCAGCCCAGCCCGCTGCAGCACCAG
TTCTCCATGCCCTCCGTGCCCCCGCCAGAAGACCTGCTGGATCACGAGGCCCTCATTGACCAGTACTTAA
GGGACCCTAACCTTCACAAGAAGTATCGAGTGGGGCTGAACCGAGTTGCTGCCCAGGAGGTACCTATTGA
GATCAAGGTGGTGAACCCACCCACCCTGACCCAGCTGCAGGCACTGGAGCCCAAACAGATGTTCTGGGTG
CGTGCCCGGGGCTACATTGGGGAAGGTGACATCAAGATGCATTGCTGTGTGGCTGCTTATATCTCTGACT
ACGCCTTCCTGGGTACAGCACTGCTGCCCCACCAGTCCAAGTATAAGGTGAACTTCATGGCGTCACTGGA
TCACTCCATGTGGTTTCATGCCCCATTCCGAGCCGACCACTGGATGCTGTACGAGTGTGAGAGCCCCTGG
GCTGGTGGCTCTCGAGGGCTGGTGCATGGGCGGCTGTGGCGTCGGGATGGGGTCCTTGCTGTGACCTGTG
CCCAGGAGGGTGTGATCCGATTGAAGCCTCAGGTGTCAGAGAGTAAGCTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

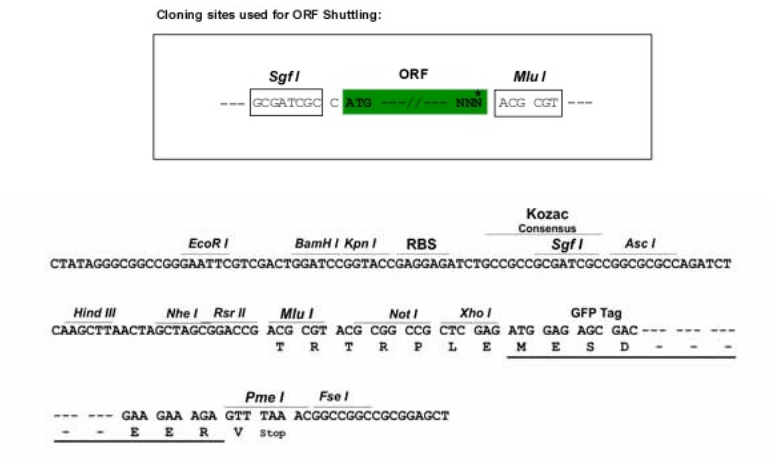
>MG204622 representing NM_133240
Red=Cloning site Green=Tags(s)

MSAPEGLGDAHGDADRGDLSGDLRSVLVTSVLNLEPLDEDLYRGRHYWVPTSQRLFGGQIMGQALVAAAK
SVSEDVHVHSLHCYFVRAGDPKVPVLYHVERIRTGASFSVRAVKAVQHGKAIFICQASFQQMQPSPLQHQ
FSMPSVPPPEDLLDHEALIDQYLRDPNLHKKYRVGLNRVAAQEVPIEIKVVNPPTLTQLQALEPKQMFWV
RARGYIGEGDIKMHCCVAAYISDYAFLGTALLPHQSKYKVNFMASLDHSMWFHAPFRADHWMLYECESPW
AGGSRGLVHGRLWRRDGVLAVTCAQEGVIRLKPQVSESKL

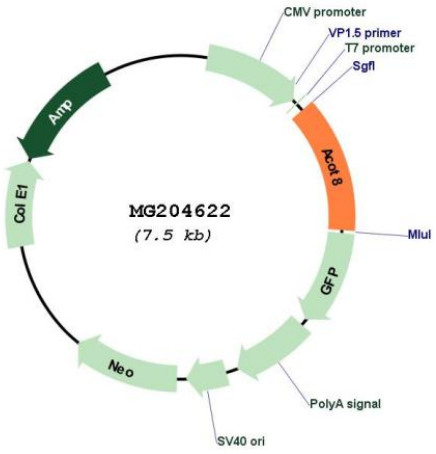
TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_133240

ORF Size: 960 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_133240.2, NP_573503.2
RefSeq Size:	1182 bp
RefSeq ORF:	963 bp
Locus ID:	170789
UniProt ID:	P58137
Cytogenetics:	2 H3
Gene Summary:	Acyl-coenzyme A (acyl-CoA) thioesterases are a group of enzymes that catalyze the hydrolysis of acyl-CoAs to the free fatty acid and coenzyme A (CoASH), providing the potential to regulate intracellular levels of acyl-CoAs, free fatty acids and CoASH (PubMed:11673457). Acyl-coenzyme A thioesterase 8/ACOT8 display no strong substrate specificity with respect to the carboxylic acid moiety of Acyl-CoAs (PubMed:11673457). Hydrolyzes medium length (C2 to C20) straight-chain, saturated and unsaturated acyl-CoAS but is inactive towards substrates with longer aliphatic chains (PubMed:11673457). Moreover, it catalyzes the hydrolysis of CoA esters of bile acids, such as choloyl-CoA and chenodeoxycholoyl-CoA and competes with bile acid CoA:amino acid N-acyltransferase (BAAT) (PubMed:11673457). ACOT8 is also able to hydrolyze CoA esters of dicarboxylic acids (PubMed:16141203). It is involved in the metabolic regulation of peroxisome proliferation (By similarity).[UniProtKB/Swiss-Prot Function]