

Product datasheet for **RC210550**

Acyl coenzyme A Thioesterase 4 (ACOT4) (NM_152331) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Acyl coenzyme A Thioesterase 4 (ACOT4) (NM_152331) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Acyl coenzyme A Thioesterase 4
Synonyms:	PTE-Ib; PTE1B; PTE2B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC210550 representing NM_152331
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGTCAGCAACGCTGATCCTGGAGCCCCAGGCCGCTGCTGCTGGAACGAGCCGGTGCGCATTGCCGTGC
 GCGGCCTGGCCCCGAGCAGCGGTTACGCTGCGCGCTCCCTGCGCGACGAGAAGGGCGCGCTCTCCG
 GGCCACGCGCGCTACTGCGCCGACGCCGCGGAGCTGGACCTGGAGCGCGCACCCGCGCTGGGCGGC
 AGCTTCGCGGGACTCGAGCCATGGGGCTGCTCTGGGCCCTGGAACCCGAGAAGCCTTTTGGCGTTCC
 TGAAGCGGGACGTACAGATTCTTTTGTCTGGAGTTGGAGGTGCTGGACGGCCACGACCCGAGCCTGG
 ACGGCTGCTGTGCCAGGCGCAGCAGAGCGCCACTTCTCCGCCAGGGTGCGGCGCCAGTCGGTGCGA
 GCGGGCCGGTGCGGCCACGCTTCTCTGCCAGGACCTGGACCCTCCAGGGATCATTGACATCT
 TTGGATTGGAGGGGCTCTTGAATATCGAGCCAGCCTCCTTGTGGCCATGGCTTTGCCACGTTGGC
 TCTAGCTTATTAACTTTGAAGATCTCCCAATAACATGGACAACATATCCCTGGAGTACTTCGAAGAA
 GCCGTATGCTACATGCTCAACATCCCCAGGTAAGGCCAGGCAATGGGCTTTTGGGCATTTCTCTAG
 GAGCTGATATTTGTCTCTCAATGGCCTCATTCTTGAAGAATGTCTCAGCCACAGTTTCCATCAATGGATC
 TGGGATCAGTGGGAACACAGCCATCAACTATAAGCACAGTAGCATTCCACCATTGGGCTATGACCTGAGG
 AGAATCAAGGTAGCTTTCTCAGGCTCGTGACATTGTGGATAAAGGAATGCTCTCGTAGGAGGGTACA
 AGAACCCAGCATGATCCAATAGAGAAGGCCAGGGGCCATCTGCTCATTGTTGGTCAGGATGACCA
 TAACTGGAGAAGTGAGTTGTATGCCAAACAGTCTCTGAACGGTTACAGGCCATGGAAAGGAAAAACCC
 CAGATCATCTGTTACCCTGGGACTGGGCATTACATCGAGCCTCCTTACTCCCCCTGTGCCAGCTTCCC
 TTCACAGATTACTGAACAAACATGTTATATGGGGTGGGAGCCAGGGCTCATTCTAAGGCCAGGAAGA
 TGCTGGAAGCAAATTCTAGCCTTCTTGCAAACACCTGGGAGGTACCCAGAAAACAGCTGTCCCTAAA
 TTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC210550 representing NM_152331
 Red=Cloning site Green=Tags(s)

MSATLILEPPGRCCWNEPVRIAVRGLAPEQRVTLRASLRDEKGFRAHARYCADARGELDLERAPALGG
 SFAGLEPMGLLWALEPEKPFWRFLKRDVQIPFVVELEVLDGHDPEPGRLLCQAQHERHFLPPGVRQSVR
 AGRVRLTLFLPPGPGPFPGIIFIGIGGLLEYPASLLAGHGFATLALAYNFEDLPNMDNISLEYFEE
 AVCYMLQHPQVKGPGIGLLGISLGADICLSMASFLKNVSATVVSINGSGISGNTAINYKHSSIPPLGYDLR
 RIKVAFSGLVDIVDIRNALVGGYKNPSMIEKAGPIILLIVGQDDHNWRSEL YAQTVSERLQAHGKEKP
 QIICYPGTGHYIEPPYFPLCPASLHRLLNKHVIWGGEPRAHKAQEDAWKQILAFFCKHLGGTQKTA
 VPK
 L

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg4278_e11.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_152331

ORF Size: 1263 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_152331.3](#)

RefSeq Size: 1703 bp

RefSeq ORF: 1266 bp

Locus ID: 122970

UniProt ID: [Q8N9L9](#)

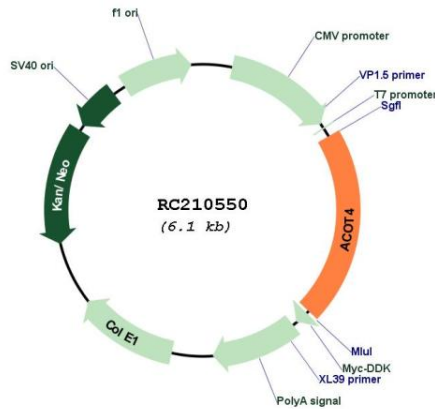
Cytogenetics: 14q24.3

Protein Pathways: Biosynthesis of unsaturated fatty acids

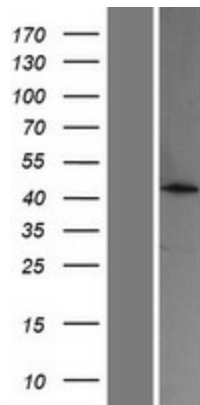
MW: 46.1 kDa

Gene Summary: 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:16940157). ACOT4 is a peroxisomal succinyl-coenzyme A thioesterase can also hydrolyze glutaryl-CoA and long chain saturated acyl-CoAs (PubMed:16940157).[UniProtKB/Swiss-Prot Function]

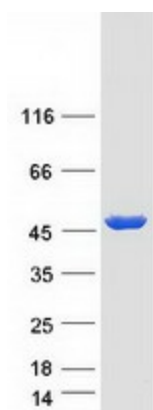
Product images:



Circular map for RC210550



Western blot validation of overexpression lysate (Cat# [LY407636]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210550 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ACOT4 protein (Cat# [TP310550]). The protein was produced from HEK293T cells transfected with ACOT4 cDNA clone (Cat# RC210550) using MegaTran 2.0 (Cat# [TT210002]).