

Product datasheet for **TR306894**

ACAT1 (ACACA) Human shRNA Plasmid Kit (Locus ID 31)

Product data:

Product Type:	shRNA Plasmids
Product Name:	ACAT1 (ACACA) Human shRNA Plasmid Kit (Locus ID 31)
Locus ID:	31
Synonyms:	ACAC; ACC; ACC, ACAC, ACC1, ACCA; ACC-alpha; ACC1; ACCA; acetyl-CoA carboxylase-alpha; acetyl-CoA carboxylase 1; acetyl-Coenzyme A carboxylase alpha; OTTHUMP00000164069
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	ACACA - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 31). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_000664 , NM_198834 , NM_198835 , NM_198836 , NM_198837 , NM_198838 , NM_198839 , NM_198838.1 , NM_198834.1 , NM_198834.2 , NM_198837.1 , NM_198839.1 , NM_198839.2 , NM_198836.1 , NM_198836.2 , BC031485 , BC041598 , BC137287
UniProt ID:	Q13085
Summary:	Acetyl-CoA carboxylase (ACC) is a complex multifunctional enzyme system. ACC is a biotin-containing enzyme which catalyzes the carboxylation of acetyl-CoA to malonyl-CoA, the rate-limiting step in fatty acid synthesis. There are two ACC forms, alpha and beta, encoded by two different genes. ACC-alpha is highly enriched in lipogenic tissues. The enzyme is under long term control at the transcriptional and translational levels and under short term regulation by the phosphorylation/dephosphorylation of targeted serine residues and by allosteric transformation by citrate or palmitoyl-CoA. Multiple alternatively spliced transcript variants divergent in the 5' sequence and encoding distinct isoforms have been found for this gene. [provided by RefSeq, Jul 2008]
shRNA Design:	These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com . If you need a special design or shRNA sequence, please utilize our custom shRNA service .



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**Performance
Guaranteed:**

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).