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Product datasheet for TR514072

Aco1 Mouse shRNA Plasmid (Locus ID 11428)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Aco1 Mouse shRNA Plasmid (Locus ID 11428)
Locus ID:	11428
Synonyms:	Aco-1; Irebp; Irp1
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Aco1 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 11428). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	BC005454, NM_007386, NM_007386.1, NM_007386.2, BC020360
UniProt ID:	P28271
Summary:	This gene encodes a member of the aconitase/IPM isomerase protein family. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Depending on iron levels in the cytosol, the encoded protein can function as either an aconitase enzyme or as an mRNA binding protein. When cellular iron levels are high, the encoded protein functions as an aconitase, an essential enzyme in the TCA cycle that catalyzes the conversion of citrate to isocitrate. When cellular iron levels are low, the encoded protein regulates iron uptake and utilization by binding to iron-responsive elements in the untranslated regions of mRNAs for genes involved in iron metabolism. Disruption of this gene is associated with pulmonary hypertension and polycythemia. [provided by RefSeq, Jan 2014]
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).