

Product datasheet for **TR510208**

Alpl Mouse shRNA Plasmid (Locus ID 11647)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Alpl Mouse shRNA Plasmid (Locus ID 11647)
Locus ID:	11647
Synonyms:	Ak; Akp; Akp-2; Akp2; ALP; APTNAP; T; TNAP; TNSALP
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Alpl - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector (Gene ID = 11647). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	BC065175 , NM_001287172 , NM_001287176 , NM_007431 , NM_007431.1 , NM_007431.2 , NM_007431.3 , NM_001287172.1 , NM_001287176.1
UniProt ID:	P09242
Summary:	This gene encodes a preproprotein that is proteolytically cleaved to yield a signal peptide and a proproptein that is subsequently processed to generate the active mature peptide. The encoded protein is a membrane-bound glycosylated enzyme that catalyzes the hydrolysis of phosphate esters at alkaline pH. The mature peptide maintains the ratio of inorganic phosphate to inorganic pyrophosphate required for bone mineralization. Mice that lack this enzyme show symptoms of osteomalacia, softening of the bones. In humans, mutations in this gene are associated with hypophosphatasia, an inherited metabolic bone disease in which deficiency of this enzyme inhibits bone mineralization leading to skeletal defects. Mutations in the mouse gene mirror the symptoms of human hypophosphatasia. A pseudogene of this gene is present on chromosome X. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2015]
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).