

## Product datasheet for **TR304214**

### GPT2 Human shRNA Plasmid Kit (Locus ID 84706)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	GPT2 Human shRNA Plasmid Kit (Locus ID 84706)
Locus ID:	84706
Synonyms:	ALT2; GPT 2; MRT49; NEDSPM
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	GPT2 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 84706). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_001142466</a> , <a href="#">NM_133443</a> , <a href="#">NM_133443.1</a> , <a href="#">NM_133443.2</a> , <a href="#">NM_133443.3</a> , <a href="#">NM_001142466.1</a> , <a href="#">NM_001142466.2</a> , <a href="#">BC062555</a> , <a href="#">BC062555.1</a> , <a href="#">BC051364</a> , <a href="#">NM_133443.4</a>
UniProt ID:	<a href="#">Q8TD30</a>
Summary:	This gene encodes a mitochondrial alanine transaminase, a pyridoxal enzyme that catalyzes the reversible transamination between alanine and 2-oxoglutarate to generate pyruvate and glutamate. Alanine transaminases play roles in gluconeogenesis and amino acid metabolism in many tissues including skeletal muscle, kidney, and liver. Activating transcription factor 4 upregulates this gene under metabolic stress conditions in hepatocyte cell lines. A loss of function mutation in this gene has been associated with developmental encephalopathy. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a> . If you need a special design or shRNA sequence, please utilize our <a href="#">custom shRNA service</a> .



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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](mailto: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).