

## Product datasheet for **TR311480**

### MGP Human shRNA Plasmid Kit (Locus ID 4256)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	MGP Human shRNA Plasmid Kit (Locus ID 4256)
Locus ID:	4256
Synonyms:	GIG36; MGLAP; NTI
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	MGP - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 4256). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_000900</a> , <a href="#">NM_001190839</a> , <a href="#">NM_000900.1</a> , <a href="#">NM_000900.2</a> , <a href="#">NM_000900.3</a> , <a href="#">NM_000900.4</a> , <a href="#">NM_001190839.1</a> , <a href="#">NM_001190839.2</a> , <a href="#">BC093078</a> , <a href="#">BC005272</a> , <a href="#">BC070314</a> , <a href="#">NM_001190839.3</a> , <a href="#">NM_000900.5</a>
UniProt ID:	<a href="#">P08493</a>
Summary:	This gene encodes a member of the osteocalcin/matrix Gla family of proteins. The encoded vitamin K-dependent protein is secreted by chondrocytes and vascular smooth muscle cells, and functions as a physiological inhibitor of ectopic tissue calcification. Carboxylation status of the encoded protein is associated with calcification of the vasculature in human patients with cardiovascular disease and calcification of the synovial membranes in osteoarthritis patients. Mutations in this gene cause Keutel syndrome in human patients, which is characterized by abnormal cartilage calcification, peripheral pulmonary stenosis and facial hypoplasia. [provided by RefSeq, Sep 2016]
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).