

## Product datasheet for **TG301493**

### SMOX Human shRNA Plasmid Kit (Locus ID 54498)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	SMOX Human shRNA Plasmid Kit (Locus ID 54498)
Locus ID:	54498
Synonyms:	C20orf16; PAO; PAO-1; PAO1; PAOH; PAOH1; SMO
Vector:	pGFP-V-RS (TR30007)
E. coli Selection:	Kanamycin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	SMOX - Human, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 54498). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.
RefSeq:	<a href="#">NM_001270691</a> , <a href="#">NM_019025</a> , <a href="#">NM_175839</a> , <a href="#">NM_175840</a> , <a href="#">NM_175841</a> , <a href="#">NM_175842</a> , <a href="#">NM_175840.1</a> , <a href="#">NM_175840.2</a> , <a href="#">NM_175841.1</a> , <a href="#">NM_175841.2</a> , <a href="#">NM_175839.1</a> , <a href="#">NM_175839.2</a> , <a href="#">NM_175842.1</a> , <a href="#">NM_175842.2</a> , <a href="#">NM_001270691.1</a> , <a href="#">BC000669</a> , <a href="#">BC000669.2</a> , <a href="#">NM_175841.3</a> , <a href="#">NM_175842.3</a> , <a href="#">NM_175839.3</a> , <a href="#">NM_175840.3</a>
UniProt ID:	<a href="#">Q9NWM0</a>
Summary:	Polyamines are ubiquitous polycationic alkylamines which include spermine, spermidine, putrescine, and agmatine. These molecules participate in a broad range of cellular functions which include cell cycle modulation, scavenging reactive oxygen species, and the control of gene expression. These molecules also play important roles in neurotransmission through their regulation of cell-surface receptor activity, involvement in intracellular signalling pathways, and their putative roles as neurotransmitters. This gene encodes an FAD-containing enzyme that catalyzes the oxidation of spermine to spermadine and secondarily produces hydrogen peroxide. Multiple transcript variants encoding different isoenzymes have been identified for this gene, some of which have failed to demonstrate significant oxidase activity on natural polyamine substrates. The characterized isoenzymes have distinctive biochemical characteristics and substrate specificities, suggesting the existence of additional levels of complexity in polyamine catabolism. [provided by RefSeq, Jul 2012]



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- 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](mailto:techsupport@origene.com). If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).
- 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).