

Product datasheet for **TL309191V**

Superoxide Dismutase 1 (SOD1) Human shRNA Lentiviral Particle (Locus ID 6647)

Product data:

Product Type:	shRNA Lentiviral Particles
Product Name:	Superoxide Dismutase 1 (SOD1) Human shRNA Lentiviral Particle (Locus ID 6647)
Locus ID:	6647
Synonyms:	ALS; ALS1; HEL-S-44; homodimer; hSod1; IPOA; SOD; STAHP
Vector:	pGFP-C-shLenti (TR30023)
Format:	Lentiviral particles
Components:	SOD1 - Human shRNA lentiviral particles (4 unique 29mer target-specific shRNA, 1 scramble control), 0.5 ml each, >10 ⁷ TU/ml.
RefSeq:	NM_000454 , NM_000454.1 , NM_000454.2 , NM_000454.3 , NM_000454.4 , BC001034 , BC001034.1 , NM_000454.5
UniProt ID:	P00441
Summary:	The protein encoded by this gene binds copper and zinc ions and is one of two isozymes responsible for destroying free superoxide radicals in the body. The encoded isozyme is a soluble cytoplasmic protein, acting as a homodimer to convert naturally-occurring but harmful superoxide radicals to molecular oxygen and hydrogen peroxide. The other isozyme is a mitochondrial protein. In addition, this protein contains an antimicrobial peptide that displays antibacterial, antifungal, and anti-MRSA activity against <i>E. coli</i> , <i>E. faecalis</i> , <i>S. aureus</i> , <i>S. aureus</i> MRSA LPV+, <i>S. agalactiae</i> , and yeast <i>C. krusei</i> . Mutations in this gene have been implicated as causes of familial amyotrophic lateral sclerosis. Rare transcript variants have been reported for this gene. [provided by RefSeq, Jul 2020]
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).