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Product datasheet for RC200725L2V

Superoxide Dismutase 1 (SOD1) (NM_000454) Human Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Superoxide Dismutase 1 (SOD1) (NM_000454) Human Tagged ORF Clone Lentiviral Particle
Symbol:	SOD1
Synonyms:	ALS; ALS1; HEL-S-44; homodimer; hSod1; IPOA; SOD; STAHP
Vector:	pLenti-C-mGFP (PS100071)
Tag:	mGFP
ACCN:	NM_000454
ORF Size:	462 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC200725).
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	NM_000454.4
RefSeq Size:	981 bp
RefSeq ORF:	465 bp
Locus ID:	6647
UniProt ID:	P00441
Cytogenetics:	21q22.11
Domains:	sodcu
Protein Families:	Druggable Genome
Protein Pathways:	Amyotrophic lateral sclerosis (ALS), Huntington's disease, Prion diseases
MW:	15.9 kDa

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Gene 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-occuring 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 E. coli, E. faecalis, S. aureus, S. aureus MRSA LPV+, S. agalactiae, and yeast C. krusei. 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]