

Product datasheet for **KN200725RB**

Superoxide Dismutase 1 (SOD1) Human Gene Knockout Kit (CRISPR)

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 RFP-BSD donor, 1 scramble control
Donor DNA:	RFP-BSD
Symbol:	Superoxide Dismutase 1
Locus ID:	6647
Components:	KN200725G1 , Superoxide Dismutase 1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002) KN200725G2 , Superoxide Dismutase 1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) KN200725RBD , donor DNA containing left and right homologous arms and RFP-BSD functional cassette.

Homologous arm and RFP-BSD sequences:

pUC vector backbone in gray; Left arm sequence in blue; RFP-BSD in green; Right arm in violet

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TAAGGACTAA GAAAATTGCA GGGGAAGAAA AGGTAAGTCC CGGGATTGAG GTGTAGCGAC TTTCTATACC
CTCAGAAAAC TAAAAACAA GACAAAAAAA TGAAACTAC AAAAGCATCC ATCTTGGGGC GTCCCAATTG
CTGAGTACA AATGAGACGC TGTGGCCAAA CTCAGTCATA ACTAATGACA TTTCTAGACA AAGTGACTTC
AGATTTTCAA AGCGTACCCT GTTTACATCA TTTTGCCAAT TTCGCTACT GCAACCGGC GGCACGCC
CCGTGAAAAG AAGTTGTTT TCTCCACATT TCGGGTTCT GGACGTTTC CGGCTGCGG GCGGGGGGAG
TCTCCGGCGC ACGCGGCC CTTGGCCCCG CCCCAGTCAT TCCCGGCCAC TCGCGACCCG AGGCTGCCGC
AGGGGGCGGG CTGAGCGCGT GCGAGGCGAT TGGTTTGGG CCAGAGTGGG CGAGGCGCGG AGGTCTGGCC
TATAAAGTAG TCGCGGAGAC GGGGTGCTGG TTTGCGTGT AGTCTCCTGC AGCGTCTGGG GTTTCCGTTG
CAGTCCTCGG AACCAGGACC TCGGCGTGGC CTAGCGAGTT CTTGTTTGGC AGGCCGCTCC CACCCGCTCG
TCCCCCGCG CACCTTTGCT AGGAGCGGGT CGCCCGCCAG GCCTCGGGC CGCCCTGGTC CAGCGCCCGG
TCCCGGCCG TGCCGCCCG TCGGTGCCTT CGCCCCAGC GGTGCGGTGC CCAAGTCTG AGTCACCGGG
CGGGCCCCGG CGCGGGCGT GGGACGAGG CCGCCCGGG GCTGGGCTG CGCGTGCGG GAGCGCGGGG
AGGGATTGCC GCGGGCCGG GAGGGGCGG GCGGGCGTG CTGCCCTCTG TGGTCTTGG GCCGCCCGG
CGGTCTGTC GTGGTGCCTG GAGCGGCTGT GCTCGTCCCT TGCTTGCCG TGTCTCGTT CCTGAGGGTC
CCGCGGACAC CGAGTGGCGC AGTGCCAGGC CCAGCCCGG GATGGCGACT GCGCCTGGG CCGCCTGGT
TCTTCGCATC CCTCTCCGCT TTCCGGCTTC AGCGCTTAG GTCAGGGAGT CTTCGCTTTT GTACAGCTCT
AAGGCTAGGA ATGGTTTTTA TATTTTTAAA AGGCTTTGGA AAACAAAAAT ACGCAACAGA GACCGTTTGT
GTGACACTTT

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GE100003, scramble sequence in pCas-Guide vector



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Disclaimer: These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.

RefSeq: [NM_000454](#)

UniProt ID: [P00441](#)

Synonyms: ALS; ALS1; HEL-S-44; homodimer; hSod1; IPOA; SOD

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 *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]

Product images:

