

Product datasheet for KN200725RB

OriGene Technologies, Inc.

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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

TAAGGACTAA GAAAATTGCA GGGGAAGAAA AGGTAAGTCC CGGGATTGAG GTGTAGCGAC TTTCTATACC CTCAGAAAAC TAAAAAACAA GACAAAAAAA TGAAAACTAC AAAAGCATCC ATCTTGGGGC GTCCCAATTG CTGAGTAACA AATGAGACGC TGTGGCCAAA CTCAGTCATA ACTAATGACA TTTCTAGACA AAGTGACTTC AGATTTTCAA AGCGTACCCT GTTTACATCA TTTTGCCAAT TTCGCGTACT GCAACCGGCG GGCCACGCCC CCGTGAAAAG AAGGTTGTTT TCTCCACATT TCGGGGTTCT GGACGTTTCC CGGCTGCGGG GCGGGGGGAG TCTCCGGCGC ACGCGGCCCC TTGGCCCCGC CCCCAGTCAT TCCCGGCCAC TCGCGACCCG AGGCTGCCGC AGGGGGCGGG CTGAGCGCGT GCGAGGCGAT TGGTTTGGGG CCAGAGTGGG CGAGGCGCGG AGGTCTGGCC TATAAAGTAG TCGCGGAGAC GGGGTGCTGG TTTGCGTCGT AGTCTCCTGC AGCGTCTGGG GTTTCCGTTG CAGTCCTCGG AACCAGGACC TCGGCGTGGC CTAGCGAGTT CTTGTTTGCG AGGCCGCTCC CACCCGCTCG TCCCCCGGG CACCTTTGCT AGGAGCGGGT CGCCCGCCAG GCCTCGGGGC CGCCCTGGTC CAGCGCCCGG CGGGCCCGGG CGCGGGGCGT GGGACCGAGG CCGCCGCGGG GCTGGGCCTG CGCGTGGCGG GAGCGCGGGG AGGGATTGCC GCGGGCCGGG GAGGGGCGGG GGCGGGCGTG CTGCCCTCTG TGGTCCTTGG GCCGCCGCCG CGGGTCTGTC GTGGTGCCTG GAGCGGCTGT GCTCGTCCCT TGCTTGGCCG TGTTCTCGTT CCTGAGGGTC CCGCGGACAC CGAGTGGCGC AGTGCCAGGC CCAGCCCGGG GATGGCGACT GCGCCTGGGC CCGCCTGGTG TCTTCGCATC CCTCTCCGCT TTCCGGCTTC AGCGCTCTAG GTCAGGGAGT CTTCGCTTTT GTACAGCTCT AAGGCTAGGA ATGGTTTTTA TATTTTTAAA AGGCTTTGGA AAACAAAAAT ACGCAACAGA GACCGTTTGT **GTGACACTTT**

GE100003, scramble sequence in pCas-Guide vector



Superoxide Dismutase 1 (SOD1) Human Gene Knockout Kit (CRISPR) - KN200725RB

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: <u>NM 000454</u>

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

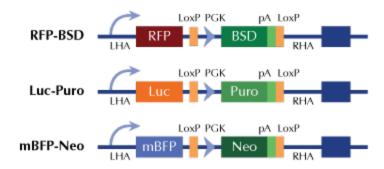
responsible for destroying free superoxide radicals in the body. The encoded isozyme is a soluble cytoplasmic protein, acting as a homodimer to convert naturally-occuring but

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]

Product images:

Donor Vector Edited Chromosome



RFP, Luc, and mBFP will be under native gene promoter