Construct information sheet

Gene name	**SOD1**
Uniprot ID	P00441
Region	M1 – Q154

Description	superoxide dismutase 1
Synonyms	ALS, ALS1, HEL-S-44, IPOA, SOD, hSod1, homodimer
Construct ID	SOD1A-c211
Protein sequence	*MHHHHHHSSGVDLGTENLYFQ*SMATKAVCVLKGDGPVQGIINFE QKESNGPVKVWGSIKGLTEGLHGFHVHEFGDNTAGCTSAGPHFNP LSRKHGGPKDEERHVGDLGNVTADKDGVADVSIEDSVISLSGDHC IIGRTLVVHEKADDLGKGGNEESTKTGNAGSRLACGVIGIAQS*SK* *GGYGLNDIFEAQKIEWHE*
DNA sequence (coding sequence)	ATGCACCATCATCATCATCATTCTTCTGGTGTAGATCTGGGTACCGAGAA CCTGTACTTCCAATCCATGGCGACGAAGGCCGTGTGCGTGCTGAAGGGCG ACGGCCCAGTGCAGGGCATCATCAATTTCGAGCAGAAGGAAAGTAATGGA CCAGTGAAGGTGTGGGGAAGCATTAAAGGACTGACTGAAGGCCTGCATGG ATTCCATGTTCATGAGTTTGGAGATAATACAGCAGGCTGTACCAGTGCAG GTCCTCACTTTAATCCTCTATCCAGAAAACACGGTGGGCCAAAGGATGAA GAGAGGCATGTTGGAGACTTGGGCAATGTGACTGCTGACAAAGATGGTGT GGCCGATGTGTCTATTGAAGATTCTGTGATCTCACTCTCAGGAGACCATT GCATCATTGGCCGCACACTGGTGGTCCATGAAAAAGCAGATGACTTGGGC AAAGGTGGAAATGAAGAAAGTACAAAGACAGGAAACGCTGGAAGTCGTTT GGCTTGTGGTGTAATTGGGATCGCCCAAAGCAGTAAAGGTGGATACGGCC TGAATGATATCTTTGAAGCGCAGAAGATTGAATGGCATGAATGA
Construct accession No.	

Vector information:

pNIC-Bio3	Expression vector with N-terminal His6-TEV and C-terminal avi-tag
Antibiotic resistance	Kanamycin, 50 μg/ml
Promoter	T7 - lacO
N-terminal fusion – seq.	MHHHHHHSSGVDLGTENLYFQ*SM (* - TEV cleavage site)
N-terminal fusion – MW	2684.1 Da including Met (2465.8 Da removed by TEV cleavage)
C-terminal fusion – seq.	GSKGGYGLNDIFEAQ**K***IEWHE (* biotinylation site)
C-terminal fusion - MW	2396.57 Da, +226 Da for biotinylation
Protease cleavage	TEV protease
Preferred expression host	DE3 hosts: BL21, Rosetta, etc. MUST express T7 RNA polymerase. For effective biotinylation, the host should overexpress BirA (e.g. from plasmid pCDF-BIRA, GenBank: JF914075)
Genebank: JN792439	Reference: PMID: 22027370

Opher Gileadi, Structural Genomics Consortium
opher.gileadi@sgc.ox.ac.uk

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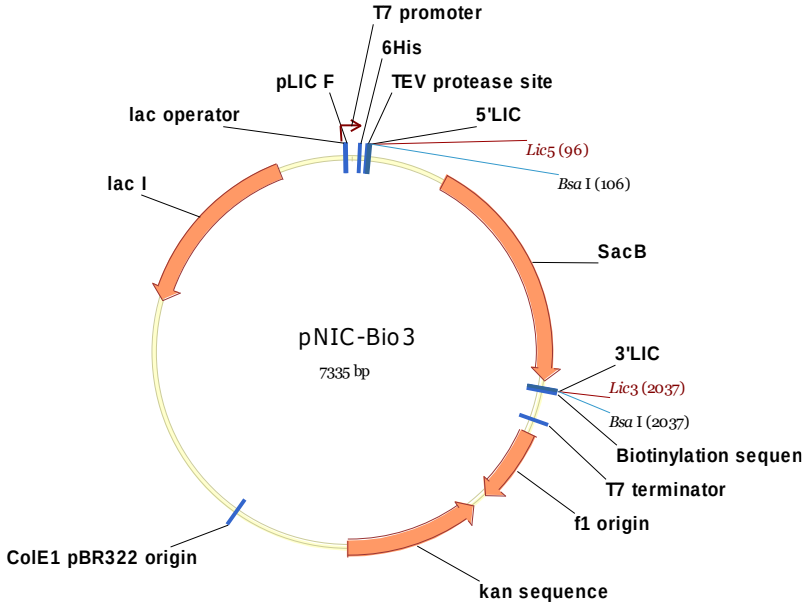

Opher Gileadi, Structural Genomics Consortium
opher.gileadi@sgc.ox.ac.uk