Distribution, diversity and activities of sulfur dioxygenases in heterotrophic bacteria

Honglei Liu, Yufeng Xin, and Luying Xun

Supplementary Information Contents

Table S1 Oligonucleotide primers used for plasmid construction

Primers	Nucleotide Sequence[a]	Target protein
AtBlh-f	TAAGAAGGAGATATACATATGAAGGCCGTAAGG	AtBlh
AtBlh-r	TGGTGGTGGTGCTCGAGCCATGTGCTGCCCTCCAGCA	
SmBlh-f	AGAAGGAGATATACATATGCCTATTACTGCAATATCC	SmBlh
SmBlh-r	GTGGTGGTGCTCGAGTTCCCATGCCGCTCCCTG	
CnSdoA-f	TAAGAAGGAGATATACATATGACACCGACCATGCCAAGCC	CnSdoA
CnSdoA-r	GTGGTGGTGCTCGAGGAGGGCGTTGAGGGGAATCT	
BxSdoA-f	TAAGAAGGAGATATACATATGACCGCC	BxSdoA
BxSdoA-r	GTGGTGGTGCTCGAGAAGCGCAT	
PpSdoA-f	TAAGAAGGAGATATACATATGATCATCGGCAACAACCTT	PpSdoA
PpSdoA-r	GTGGTGGTGCTCGAGCAGCTTGTTCAGCGGGATCT	
PaSdoA-f	TAAGAAGGAGATATACATATGTTGAAACCCGACATCAC	PaSdoA
PaSdoA-r	GTGGTGGTGCTCGAGGAACAGATCCAGCGG	
CnETHE1-f	TAAGAAGGAGATATACATATGCAAACCTTCTATCAGCT	CnETHE1
CnETHE1-r	GTGGTGGTGCTCGAGGGCGCCATGCGGCACGCTTT	
MxETHE1a-f	AGAAGGAGATATACATATGCTCTTCCGCCAGCTCT	MxETHE1a
MxETHE1a-r	GTGGTGGTGCTCGAGATGTGTGAAGCTGCCT	
EcGloB1-f	TAAGAAGGAGATATACATATGAATCTTAACAGTATTCCCG	EcGloB1
EcGloB1-r	GGTGGTGGTGCTCGAGGAACCTATCTTTCTTTGACC	
HiGloB1-f	TAAGAAGGAGATATACATATGTTATTTGCTTTACCT	HiGloB1
HiGloB1-r	GTGGTGGTGCTCGAGGAACATATCTTTTGCTTTGC	
EcGloB2-f	TAAGAAGGAGATATACATATGAACTATCGTATTATT	EcGloB2
EcGloB2-r	GTGGTGGTGCTCGAGCCAGACGGGCATTTCGTCTT	
PaGloB2-f	TAAGAAGGAGATATACATATGTCGACATCCCCCGCGCT	PaGloB2
PaGloB2-r	GTGGTGGTGCTCGAGGCCCCTGACGAAGGGGTTC	

[a]Underlined sequences indicate overlap sequences with pET30 Ec/Lic.

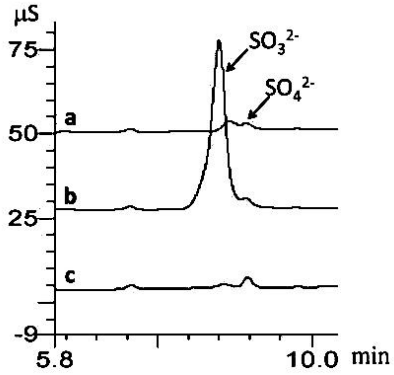

Fig. S1 Ion chromatography analysis of the product from GSSH oxidation by CnSdoA. The reactions were carried out in typical reaction mixtures with 1 mM GSSH and (**a**) heat-inactivated CnSdoA, (**b**) CnSdoA, or (**c**) control without CnSdoA.

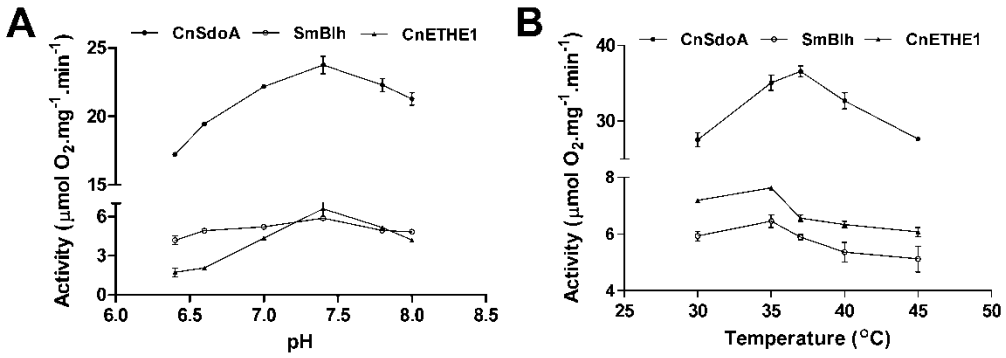

Fig. S2 Optimal of pH and temperature of SDOs. The SDO activities were determined at various pH values within the range of 6.4 to 7.8 in 100 mM KPi buffers at 25 ℃ (A) and at different temperatures range of 25 ℃ to 45 ℃ at pH 7.4 (B).