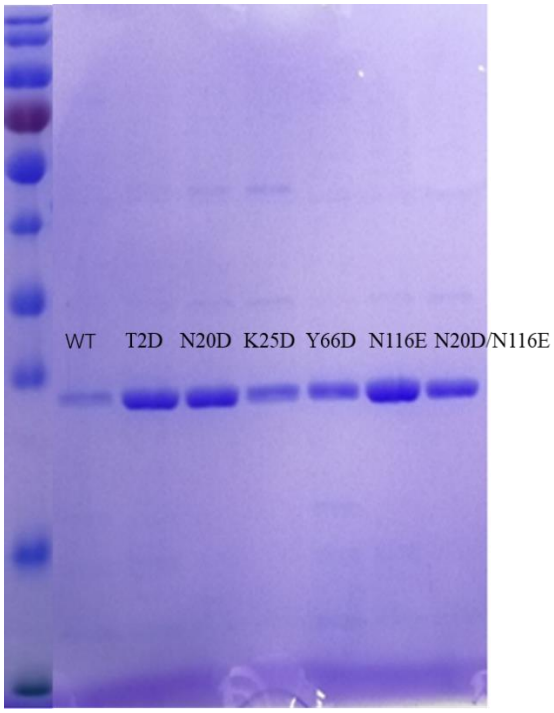

Figure S1 The gel of the purified BsNox and its variants

The purified proteins were examined by SDS-PAGE under denaturing conditions, using the prestained marker (Takara, Japan) as the reference.

Table S1 The bacterial strains, plasmids, and primers used in this study

Strains, plasmids, and primers	**Relevant characteristic or sequence**	**Source**
Strains		
Escherichia coli BL21(DE3)	Host	Laboratory stock
*Bacillus subtilis*168	For *BsNox* gene cloning	Laboratory stock
BL21/pETduet-1-*Bsgdh*$_{K218D}$	*E. coli* BL21 with pETduet-1-*Bsgdh*$_{K218D}$	Laboratory stock
BL21/pETduet-1-*BsNox*$_{N20D+N116E}$	*E. coli* BL21 with pETduet-1-B*sNox*$_{N20D+N116E}$	This study
Plasmids		
pETduet-1	Expression vector	Laboratory stock
pETduet-1-BsNox$_{N20D+N116E}$	pETduet-1 with BsNOX$_{N20D+N116E}$	This study
Primers		
BsNOX-F	AAGAAGGAGATATACATATGATGACGAATACTCTGGATGTTT TAAAAGCA (*Nde*I)	
BsNOX-R	GTTTCTTTACCAGACTCGAGTTAGTGGTGATGATGGTGATGC AGCCAAGTTGATACTTTTGAAAGCG (*Xho*I)	
BsNOX-T2D	CATATGATGGACAATACTCTGGATGTTTTAAAAG	
BsNOX-T2D	CAGAGTATTGTCCATCATATGTATATCTCCTTC	

BsNOX-K25D	GATCTCTGACGAGGAGCTGACT
BsNOX-K25D	CTCCTCGTCAGAGATCGGGG
BsNOX-Y66E	TGTAGCGGAAAATCAAAAACAAATCGT
BsNOX-Y66E	TTGATTTTCCGCTACAGGAAGAAGC
BsNOX-Y66D	TGTAGCGGACAATCAAAAACAAATCG
BsNOX-Y66D	TTGATTGTCCGCTACAGGAAGAAG
BsNOX-Q68E	AGCGTATAATGAAAAACAAATCGTTGAG
BsNOX-Q68E	CGATTTGTTTTTCATTATACGCTACAGGA
BsNOX-K85D	GCGATTTAGACGCAAATGAAAACG
BsNOX-K85D	CATTTGCGTCTAAATCGCCTAAAATG
BsNOX-Q114E	CTCGGCGAAATCAACGGTG
BsNOX-Q114E	GTTGATTTCGCCGAGCAATGT
BsNOX-A118D	AACGGTGACTACCAAAGCGA
BsNOX-A118D	TTGGTAGTCACCGTTGATTTGGC
BsNOX-Y119E	GGTGCTGAACAAAGCGAGC
BsNOX-Y119E	GCTTTGTTCAGCACCGTTG
BsNOX-I168D	TTTGATGACAGTGAGCGCTATGT
BsNOX-I168D	GCTCACTGTCATCAAATTGCTTTTG
BsNOX-R171E	AGTGAGGAATATGTTCCGGTTATGC
BsNOX-R171E	AACCGGAACATATTCCTCACTGATATC
BsNOX-H188E	CCTGCGGAACAAAGCAACC
BsNOX-H188E	GCTTTGTTCCGCAGGCTTC
BsNOX-Q189D	CGCATGACAGCAACCGTCT
BsNOX-Q189D	TTGCTGTCATGCGCAGGC
BsNOX-K197D	GCTTTCAGACGTATCAACTTGGC
BsNOX-K197D	GTTGATACGTCTGAAAGCGGC
BsNOX-N20D	TGATACAGACGCCCCGATCTCTAA
BsNOX-N20D	GGGGCGTCTGTATCATATTCCT
BsNOX-N116E	GCCAAATCGAAGGTGCTTACC
BsNOX-N116E	GCACCTTCGATTTGGCCGA