

**Supplementary Table 1. Signature sites, PNAs, circularizable ODNs, decorator probes and primer used in this work.**

Bacterium	Signature sites*	PNAs**	Decorator Probe/ Circularizable Oligonucleotides / Primer***
<i>S. aureus</i> (MSSA and MRSA)	<p><b>SA-1:</b> <u>AAAGAAAAGCAACAGAGGAA</u></p> <p><b>SA-2:</b> <u>AGAGGAAGCAGAGCGCAAGGGAAA</u></p> <p><b>SA-3:</b> <u>AAAAGAAGAAAGATTCAGAGGAAG</u></p>	<p><b>PNA1:</b> H-Lys<sub>2</sub>-TTTTTTTT-(eg1)<sub>3</sub>-TTTTCT-Lys-NH<sub>2</sub>;</p> <p><b>PNA2:</b> H-TTJTJTTT-(eg1)<sub>3</sub>-TTCTCTT-Lys-NH<sub>2</sub></p> <p><b>PNA3:</b> H-Lys<sub>2</sub>-TJTJTTJ-(eg1)<sub>3</sub>-CTTCTCT-Lys-NH<sub>2</sub></p> <p><b>PNA4:</b> H-TTJJTTT-(eg1)<sub>3</sub>-TTTCCCTT-Lys-NH<sub>2</sub></p> <p><b>PNA5:</b> H-TTJTJTTTT-(eg1)<sub>3</sub>-TTTTCTTCTT-Lys-NH<sub>2</sub></p> <p><b>PNA3</b></p>	<p><b>RED decorator:</b> 5'-<b>CY3</b>-TCACGGAATGGTTACTTGCACAGC-BIOTIN-3'</p> <p><b>ODN_SA1:</b> 5'-p-aacAAGAGGAA(tcacggaatggttacttgcCAGC) CAGCAGCC(TCACggaatggttacttgcacagc)AAAGAAAagc-3'</p> <p><b>ODN_SA2:</b> 5'-p-gcgcAAGGGAAA(tcacggaatggttacttgcCAGC) CAGCAGCC(TCACggaatggttacttgcacagc)AGAGGAAGcaga-3'</p> <p><b>ODN_SA3:</b> 5'-p-attcAGAGGAAG(tcacggaatggttacttgcCAGC) CAGCAGCC(TCACggaatggttacttgcacagc)AAAAGAAGAAg-3'</p> <p><b>Primer:</b> 5'-GTGAGGCTGCTGGCTG-3'</p>
<i>S. aureus</i> (MRSA)	<p><b>MR-1:</b> <u>AAGGAGGATATTGATGAAAAAGA</u></p> <p><b>MR-2:</b> <u>GGAAGAAAATATTATTCCAAAGAAAA</u></p>	<p><b>PNA6:</b> H-Lys<sub>2</sub>-TTJTJTTT-(eg1)<sub>3</sub>-TCTCTCTT-Lys-NH<sub>2</sub>;</p> <p><b>PNA7:</b> H-Lys-TCTTTTTC-(eg1)<sub>3</sub>-JTJTTTJT-Lys-NH<sub>2</sub></p> <p><b>PNA10:</b> H-Lys<sub>2</sub>-TTJTJTTJ-(eg1)<sub>3</sub>-CCTTCTT-Lys-NH<sub>2</sub>;</p> <p><b>PNA1</b></p>	<p><b>GREEN decorator:</b> 5'-FITC-CCTCAATCGTCGTCGTGTACTAC- FITC-3'</p> <p><b>ODN_MR1:</b> 5'-p-gatGAAAAAGAttatCAGCCAGCAGCCTCA (Cctcaatcgctgctgtactac)tattAAGGAGGAtatt-3'</p> <p><b>ODN_MR2:</b> 5'-p-atttccAAAGAAAAttatCAGCCAGCAGCCTCA (Cctcaatcgctgctgtactac)tattGGAAGAAAaatatta-3'</p>
<i>E. coli</i> vs <i>B. subtilis</i>	<p><b>E. coli rpoN:</b> (PNA polymerase sigma N factor region) <u>GAAAGAAGATGTGCTGAAAGAAG</u></p>	<p><b>PNA8:</b> H-Lys<sub>2</sub>-JTJTTTJTTJ-(eg1)<sub>3</sub>-CTTCTTTC-Lys-NH<sub>2</sub></p>	<p><b>ODN_rpoN1:</b> 5'-p-gctGAAAGAAG(tcacggaatggttacttgcCAGC) CAGCAGCC(TCACggaatggttacttgcacagc)GAAAGAAGatgt-3'</p> <p><b>ODN_rpoN2:</b> 5'-p-gctAAAAGAAG(tcacggaatggttacttgcCAGC) CAGCAGCC(TCACggaatggttacttgcacagc)GAAAGAAGatgt-3'</p> <p><b>RED</b></p>
	<p><b>B. subtilis:</b> <u>GAAAGAAGATGTaCTaAAAGAAG</u></p>	<p><b>PNA8</b></p> <p><b>PNA9:</b> H-Lys<sub>2</sub>-TTTTJTTJ-(eg1)<sub>3</sub>-CTTCTTTC-Lys-NH<sub>2</sub></p>	<p><b>ODN_rpoN3:</b> 5'-p-aCTaAAAGAAGttatCAGCCAGCAGCCTCA (Cctcaatcgctgctgtactac)tattGAAAGAAGatgt-3'</p> <p><b>GREEN</b></p>
<i>B. subtilis</i>	<p><b>serA:</b> <u>GAAAAGAAACCCTTCAGAGGAAG</u></p> <p><b>yxjA:</b> <u>GGAAGAAGCGCACTAAAGAAAA</u></p>	<p><b>PNA11:</b> H-Lys<sub>3</sub>-JTJTTTJTTT-(eg1)<sub>3</sub>-TTCTTTC-Lys-NH<sub>2</sub></p> <p><b>PNA3</b></p> <p><b>PNA12:</b> H-Lys<sub>2</sub>-JJTTJTTJ-(eg1)<sub>3</sub>-CTTCTTCC-Lys-NH<sub>2</sub></p> <p><b>PNA1</b></p>	<p><b>ODN_serA:</b> 5'-p-ttcAGAGGAAGttatCAGCCAGCAGCCTCA (Cctcaatcgctgctgtactac)tattGAAAAGAAAacc-3'</p> <p><b>ODN_yxjA:</b> 5'-p-cactAAAGAAAAagtCAGCCAGCAGCCTCA (Cctcaatcgctgctgtactac)taattGGAAGAAGcgc-3'</p> <p><b>GREEN</b></p>
<i>P. aeruginosa</i>	<p><b>PA-popB:</b> <u>GGAAGAAGCCGCGAAAGAAG</u> (translocator protein popB gene)</p> <p><b>PA-clp:</b> <u>AAAGAAAAGCGAGCGAGAAGAG</u> (clp protease gene region)</p> <p><b>PA-MgtC:</b> <u>GAGGGAAGGGACACGAAGGGAAA</u> (MgtC magnesium transporter gene)</p>	<p><b>PNA12</b></p> <p><b>PNA8</b></p> <p><b>PNA1</b></p> <p><b>PNA13:</b> H-Lys<sub>2</sub>-JTJTTJTTJ-(eg1)<sub>3</sub>-CTTCTCTC-Lys-NH<sub>2</sub></p> <p><b>PNA14:</b> H-Lys<sub>2</sub>-JTJTTJTTJ-(eg1)<sub>3</sub>-CTTCCCTC-Lys-NH<sub>2</sub></p> <p><b>PNA4</b></p>	<p><b>ODN_popB:</b> 5'-p-gcGAAAGAAG(tcacggaatggttacttgcCAGC) CAGCAGCC(TCACggaatggttacttgcacagc)GGAAGAAGcc-3'</p> <p><b>ODN_clp:</b> 5'-p-agcGAGAAGAG(tcacggaatggttacttgcCAGC) CAGCAGCC(TCACggaatggttacttgcacagc)AAAGAAAagcg-3'</p> <p><b>ODN_MgtC:</b> 5'-p-acgAAGGGAAA(tcacggaatggttacttgcCAGC) CAGCAGCC(TCACggaatggttacttgcacagc)GAGGGAAGggac-3'</p> <p><b>RED</b></p>

\* underlined are PNA binding site; \*\*for PNA notations see ref.11;

\*\*\* In circularizable probe sequences: capitalized and underlined are primer annealing sites; capitalized not underlined are sequences identical to PNA binding sites; in (...) are sites for decorator probe's hybridization.