

**Table S2.** Primer cross-reactivity experiments with artificial bacterial DNA mixes

<b>Amplification with group A PCR</b>		
Relative DNA concentrations		Chromatogram analysis
<i>Streptococcus pyogenes</i> (plasmid group A)	<i>Staphylococcus aureus</i> (plasmid group C)	
1	1	<i>Streptococcus pyogenes</i>
1	10	<i>Streptococcus pyogenes</i>
1	100	<i>Streptococcus pyogenes</i>
1	1000	<i>Streptococcus pyogenes + Staphylococcus aureus</i> (equal peak heights)
<i>Streptococcus pyogenes</i> (plasmid group A)	<i>Escherichia coli</i> (plasmid group B)	
1	1	<i>Streptococcus pyogenes</i>
1	10	<i>Streptococcus pyogenes</i>
1	100	<i>Streptococcus pyogenes</i>
1	1000	<i>Streptococcus pyogenes</i>
<b>Amplification with group B PCR</b>		
Relative DNA concentrations		Chromatogram analysis
<i>Klebsiella pneumoniae</i> (genomic DNA group B)	<i>Staphylococcus aureus</i> (genomic DNA group C)	
1	1	<i>Klebsiella pneumoniae</i>
1	10	<i>Klebsiella pneumoniae</i>
1	100	<i>Klebsiella pneumoniae</i>
1	1000	<i>Klebsiella pneumoniae</i>
<i>Klebsiella pneumoniae</i> (genomic DNA group B)	<i>Enterococcus faecalis</i> (genomic DNA group A)	
1	1	<i>Klebsiella pneumoniae</i>
1	10	<i>Klebsiella pneumoniae</i>
1	100	<i>Klebsiella pneumoniae</i>
1	1000	<i>Klebsiella pneumoniae</i>
<b>Amplification with group C PCR</b>		
Relative DNA concentrations		Chromatogram analysis
<i>Staphylococcus aureus</i> (plasmid group C)	<i>Stenotrophomonas maltophilia</i> (plasmid group B)	
1	1	<i>Staphylococcus aureus</i>
1	10	<i>Staphylococcus aureus</i>
1	100	<i>Staphylococcus aureus</i>
1	1000	<i>Staphylococcus aureus</i>
<i>Staphylococcus aureus</i> (plasmid group C)	<i>Escherichia coli</i> (plasmid group B)	
1	1	<i>Staphylococcus aureus</i>
1	10	<i>Staphylococcus aureus</i>

1	100	<i>Staphylococcus aureus</i> (dominant peaks) + <i>Enterococcus faecalis</i> (low secondary peaks)
1	1000	<i>Staphylococcus aureus</i> + <i>Enterococcus faecalis</i> (equal peak heights)