

**S1 Table. *H. pylori* strains used in this study**

<b>Bacterial Strain</b>	<b>Genotype</b>	<b>References</b>
P12	Wild-type	[18]
26695	Wild-type	[19]
P12 $\Delta$ <i>cagL</i>	Complete <i>cagL</i> (HPP12_0546) deletion; Km <sup>R</sup>	[12]
P12 <i>cagL</i> <sup>NE</sup>	P12 $\Delta$ <i>cagL</i> knocked-in with <i>cagL</i> from p26695 <i>cagL</i> <sup>WT</sup> :: <i>cat</i> (HP0539); Cm <sup>R</sup> ; previously published as P12 <i>cagL</i> <sup>WT</sup>	[12]
P12 <i>cagL</i> <sup>NK</sup>	P12 $\Delta$ <i>cagL</i> knocked-in with <i>cagL</i> from p26695 <i>cagL</i> <sup>NK</sup> :: <i>cat</i> ; Cm <sup>R</sup>	This study
P12 <i>cagL</i> <sup>DE</sup>	P12 $\Delta$ <i>cagL</i> knocked-in with <i>cagL</i> from p26695 <i>cagL</i> <sup>DE</sup> :: <i>cat</i> ; Cm <sup>R</sup>	This study
P12 <i>cagL</i> <sup>DK</sup>	P12 $\Delta$ <i>cagL</i> knocked-in with <i>cagL</i> from p26695 <i>cagL</i> <sup>DK</sup> :: <i>cat</i> ; Cm <sup>R</sup>	This study
P12 <i>cagL</i> <sup>YE</sup>	P12 $\Delta$ <i>cagL</i> knocked-in with <i>cagL</i> from p26695 <i>cagL</i> <sup>YE</sup> :: <i>cat</i> ; Cm <sup>R</sup>	This study
26695 $\Delta$ <i>cagL</i>	Complete <i>cagL</i> (HP0539) deletion; Km <sup>R</sup>	This study
26695 <i>cagL</i> <sup>NE</sup>	26695 $\Delta$ <i>cagL</i> knocked-in with <i>cagL</i> from p26695 <i>cagL</i> <sup>WT</sup> :: <i>cat</i> (HP0539); Cm <sup>R</sup>	This study
26695 <i>cagL</i> <sup>NK</sup>	26695 $\Delta$ <i>cagL</i> knocked-in with <i>cagL</i> from p26695 <i>cagL</i> <sup>NK</sup> :: <i>cat</i> ; Cm <sup>R</sup>	This study
26695 <i>cagL</i> <sup>DE</sup>	26695 $\Delta$ <i>cagL</i> knocked-in with <i>cagL</i> from p26695 <i>cagL</i> <sup>DE</sup> :: <i>cat</i> ; Cm <sup>R</sup>	This study
26695 <i>cagL</i> <sup>DK</sup>	26695 $\Delta$ <i>cagL</i> knocked-in with <i>cagL</i> from p26695 <i>cagL</i> <sup>DK</sup> :: <i>cat</i> ; Cm <sup>R</sup>	This study
26695 <i>cagL</i> <sup>YE</sup>	26695 $\Delta$ <i>cagL</i> knocked-in with <i>cagL</i> from p26695 <i>cagL</i> <sup>YE</sup> :: <i>cat</i> ; Cm <sup>R</sup>	This study