

**Table S1. Primers for cloning and invitro transcription**

Primer	Sequence
<i>hctA</i> forward (common)	ATGGCGCTAAAAGATACGGC
D and L2 <i>hctA</i> reverse	TTATTTTTTTGTTGAGCGAGTTTTTTTCGCTG
muridarum <i>hctA</i> reverse	TTATTTTTTTGTTGAACGAACTTTTTTCG
<i>caviae hctA</i> reverse	TTATTTTCTTAGGGAGCGAGAAGAATTTTTTTGG
<i>pneumoniae hctA</i> reverse	TTATTTTCTAAATCCGCGTGCTTTGGAAGG
D <i>ihfA</i> forward	TATTCGTGATAAACTGACAAAAATTGTATCC
D <i>ihfA</i> reverse	CCTACGCGTTACGAATGCGTTGCTCTACC
<i>caviae ihfA</i> forward	TTTACAAGTTCAGATGGATGTTTCTTAG
<i>caviae ihfA</i> reverse	CTTTAGAAGTCCCTGCCTTCCACTAAGAAG
muridarum <i>ihfA</i> forward	TAATCAAAGGACTCTTTAGCCGAACAATCG
muridarum <i>ihfA</i> reverse	ACTGAGCTATTTAGGCTAACTTACAAAAAGC
<i>pneumoniae ihfA</i> forward	ACGCAATATCATGATGTTTATTAAGCCTAAGG
<i>pneumoniae ihfA</i> reverse	CCAAGTGAAGCTATTTAGGCATGTCGTAGG
<b>Invitro transcription</b>	
T7 L2, D forward	<u>TAATACGACTCACTATAGGGAAGTTGGTATTCTAACGCCATGGAATAGC</u>
T7 muridarum <i>ihfA</i> forward	<u>TAATACGACTCACTATAGGGATAAAGTTGCAAGTTGGTATTCTAACGCCATGG</u>
T7 <i>caviae ihfA</i> forward	<u>TAATACGACTCACTATAGGGATAGAAAAATAAGATGATATTCTACGCCATGG</u>
T7 <i>pneumoniae ihfA</i> forward	<u>TAATACGACTCACTATAGGGATAAAGAGGAAGATGATATTCTCCGCCGTGG</u>
T7 <i>ihfA</i> antisense forward	<u>TAATACGACTCACTATAGGGCCATAAAAAGCCAAGAGAACC GGAGATACG</u>
L2, D <i>ihfA</i> reverse	AAAGCCAAGAGAACCGGAGATACGGCTAACTCC
muridarum <i>ihfA</i> reverse	AAAAAGCCAAGAGAAGTGGAGACACGGCTAAC
<i>caviae ihfA</i> reverse	AAAGCCAAGAAAACAACAATCATAAG
<i>pneumoniae ihfA</i> reverse	AAAGCCAAGAAAACATAAAGTTATAC
<i>ihfA</i> sense reverse	AAAGCCAAGAGAACCGGAGATACG
<i>ihfA</i> antisense reverse	AAGTTGGTATTCTAACGCCATGGAATAGC
T7 L2, D <i>hctA</i> forward	<u>TAATACGACTCACTATAGGGTAAAACTGAAAAAATAGTTTAAAACAACAAC</u>
T7 muridarum <i>hctA</i> forward	<u>TAATACGACTCACTATAGGGTAAAACTAAAAAATAGTTTAAAACAACG</u>
T7 <i>caviae hctA</i> forward	<u>TAATACGACTCACTATAGGGTAAAAATAAAACAAGTAAAAATAGTTTAAAAC</u>
T7 <i>pneumoniae hctA</i> forward	<u>TAATACGACTCACTATAGGGATAAAACAAGTAAAAATAGTTTAAAACAGC</u>
L2,D <i>hctA</i> reverse	TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGTTGAGCGAGTTTTTTTCGCTG
muridarum <i>hctA</i> reverse	TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGTTGAACGAACTTTTTTCGTCACCTTAGC
<i>caviae hctA</i> reverse	TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCTAAATCCGCGTGCTTTGGAAGG
<i>pneumoniae hctA</i> reverse	TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCTAAATCCGCGTGCTTTGGAAGG

Underlined sequence indicates the T7 promoter.