**Table S9. Primer sets used for *in vivo* gene expression analysis of *S. pneumoniae***

|  |  |
| --- | --- |
| Target gene | qPCR primer sequence |
| SP\_0268\_spuA\_F | ACCCGAAAGGACTTGAATGG |
| SP\_0268\_spuA\_R | AGTCTGGTTTCTCTTCTGCAG |
| SP\_1069\_tprX\_F | TGCATCAGGATTTCCAACGG |
| SP\_1069\_tprX\_R | CCAAACCACCTACTTCTACC |
| SP\_0149\_metQ\_F | AACGGAGAAATCGCTGTACC |
| SP\_0149\_metQ\_R | GAGCAGTTCCAGAAACATCC |
| SP\_0749\_livJ\_F | CAGTCAACACTGCTGGTAAC |
| SP\_0749\_livJ\_R | TTCAGCTGTTCCGTATGCAG |
| SP\_0366\_aliA\_F | TTGCCGATCCATCAACCTAC |
| SP\_0366\_aliA\_R | GCAGCTACATTATCTTCCCC |
| SP\_2216\_pcsB\_F | CAAGCTCGTAGTGCTCAAAC |
| SP\_2216\_pcsB\_R | TCACTCATTGCAGCAACACG |
| SP\_1002\_adcAII\_F | AATGACCTTGGAACGTGTCC |
| SP\_1002\_adcAII\_R | TCAGGATCTAGCCATGTGTG |
| SP\_0641\_prtA\_F | TGATGAGATTGCAAATGAGG |
| SP\_0641\_prtA\_R | TTTCTTCCTTGACCCTCACC |
| sp\_1650\_psaA\_F | GCTACAAACTCAATCATCGCTGAT |
| sp\_1650\_psaA\_R | CGTCTTCAGGAAGTGGTTCGTAT |