Supplementary Material

**Ciprofloxacin Enhances the biofilm formation of *Staphylococcus aureus* via an *agrC*-dependent mechanism**

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Journal: *Frontiers in microbiology*

**Supplementary Material**

Supplementary Table S1. Primers used in this study.

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| Primer name | Sequence (5'-3') | Target | Source or reference |
| *gyrB*-RT-F | ACATTACAGCAGCGTATTAG | For qRT-PCR | Rao et al. 2022 |
| *gyrB*-RT-R | CTCATAGTGATAGGAGTCTTCT |
| *icaA*-RT-F | GTTGGTATCCGACAGTATA | Rao et al. 2022 |
| *icaA*-RT-R | CACCTTTCTTACGTTTTAATG |
| *icaD*-RT-F | ATGGTCAAGCCCAGACAGAG | Kouidhi et al. 2010 |
| *icaD*-RT-R | AGTATTTTCAATGTTTAAAGCA |
| *fnbA*-RT-F | TTCCTTAACTACCTCTTCT | This study |
| *fnbA*-RT-R | CAATCATATAACGCAACAG |
| *fnbB*-RT-F | ACGACTGGTTGTTAGGTT | This study |
| *fnbB*-RT-R | GTGAGACTACGGTTAGCA |
| *eap*-RT-F | TCTATATCACTAATACCTCTGTCT | This study |
| *eap*-RT-R | CATCAAGTTCGTTACACCAT |
| *emp*-RT-F | ACCACCACTTCATTACTAC | This study |
| *emp*-RT-R | AAGATTGAGATGGATGTGTATA |
| *agrA*-RT-F | GCAGTAATTCAGTGTATGTTCA | Rao et al. 2022 |
| *agrA*-RT-R | TATGGCGATTGACGACAA |
| *agrC*-RT-F | CTGGCCTACGTGATTA | This study |
| *agrC*-RT-R | GCTACTTACTTCATCGGG |
| *RNAIII*-RT-F | TTCACTGTGTCGATAATCCA | This study |
| *RNAIII*-RT-R | TGATTTCAATGGCACAAGAT |
| *saeR*-RT-F | GTCGTAACCATTAACTTCTG | Rao et al. 2022 |
| *saeR*-RT-R | ATCGTGGATGATGAACAA |
| *saeS*-RT-F | CGTTCTTGTAGTTCTGGTAT | This study |
| *saeS*-RT-R | GTTGGTAGTCGCATTGATA |
| *agrC*-up-F | GGGGACAAGTTTGTACAAAAAAGCAGGCTCTAAGTCACCGATTGTTG | For isogenic deletion of *agrC* in Newman | This study |
| *agrC*-up-R | ACCTTCACCTTTAGTAGATTAATAATTCCACCTACTATCAC |
| *agrC*-Down-F | GTGATAGTAGGTGGAATTATTAATCTACTAAAGGTGAAGGT | This study |
| *agrC*-Down-R | GGGGACCACTTTGTACAAGAAAGCTGGGTAATTGAATACGCCGTTAA |
| *saeRS*-up-F | GGGGACAAGTTTGTACAAAAAAGCAGGCTCTTGCCACAATAGATAGG | For isogenic deletion of *saeRS* in Newman | This study |
| *saeRS*-up-R | ATGATGCCAGAAGTTAATTAGGAACTACGATGACTG |
| *saeRS*-Down-F | CAGTCATCGTAGTTCCTAATTAACTTCTGGCATCAT | This study |
| *saeRS*-Down-R | GGGGACCACTTTGTACAAGAAAGCTGGGTTACATTACACTCATTACTCA |
| *agrC*-C-F | CGCGGATCCCATTATCACACTTATCATCA | For *agrC* complement in NewmanΔ*agrC* | This study |
| *agrC*-C-R | CCCAAGCTTTCATACATTCACATCCTT |

# References:

Kouidhi, B., Zmantar, T., Hentati, H., and Bakhrouf, A. (2010). Cell surface hydrophobicity, biofilm formation, adhesives properties and molecular detection of adhesins genes in *Staphylococcus aureus* associated to dental caries. *Microb. Pathog*. 49, 14–22. doi: 10.1016/j.micpath.2010.03.007.

Rao, L., Yu, J., Wang, B., Zhao, H., Wang, X., Guo, Y., et al. (2022). Small-Molecule Compound SYG-180-2-2 to Effectively Prevent the Biofilm Formation of Methicillin-Resistant *Staphylococcus aureus*. *Front. Microbiol*. 12, 770657. doi: 10.3389/fmicb.2021.770657.