

Supplementary materials

Anti-virulence properties of a low-molecular quaternized chitosan derivative against *Pseudomonas aeruginosa*

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Table S1: Primers used in the study

| Oligo Name | Sequence (5'-3') | Reference |
|------------|---------------------|-----------|
| LasI_For | CGCACATCTGGGAACTCA | [30] |
| LasI_Rev | CGGCACGGATCATCATCT | |
| RhlI_For | GTAGCGGGTTTGCGGATG | [30] |
| RhlI_Rev | CGGCATCAGGTCTTCATCG | |
| RpoD_For | CGAACTGCTTGCCGACTT | [30] |
| RpoD_Rev | GCGAGAGCCTCAAGGAATC | |

Table S2: Amplification conditions

| RhII | | LasI | |
|-----------|------|-----------|------|
| 95 °C 2' | | 95 °C 2' | |
| 95°C 15" | x 40 | 95°C 15" | x 40 |
| 58 °C 30" | | 56 °C 30" | |
| 72 °C 5" | | 72 °C 5" | |

Table S3. MIC values of QAL towards *P. aeruginosa* strains in TSB 20%

| Strain | Abbreviation | QAL (mg/ml) | tob (µg/ml) |
|---------------------------------|--------------|----------------|----------------|
| <i>P. aeruginosa</i> ATCC 27853 | Pa ATCC | 0.62 | 1 |
| <i>P. aeruginosa</i> W4 | Pa W4 | 0.62 | 1 |
| <i>P. aeruginosa</i> CVC02118 | Pa C2118 | 0.31 | 1 |
| <i>P. aeruginosa</i> BAL0910 | Pa B910 | 0.62 | 1 |

tob: tobramicyn

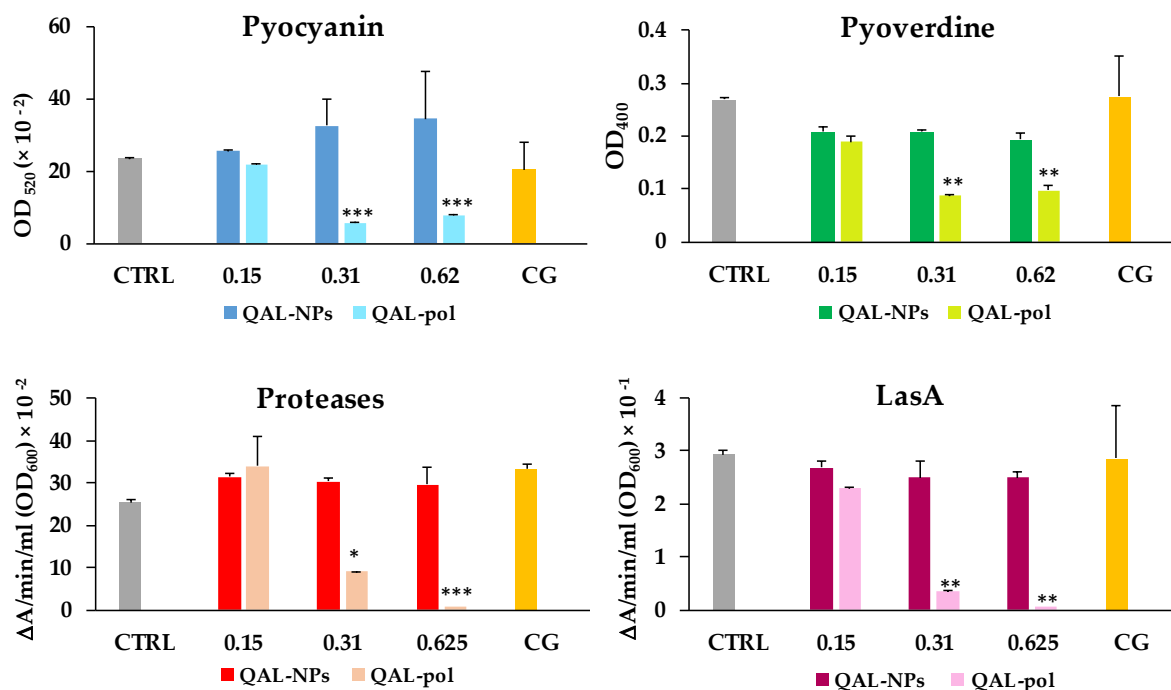


Figure S1: QAL-NPs were assayed for their anti-virulence activity against the Pa W4 strain. To this aim the strain was incubated at 37°C for 48 h in static conditions with concentrations of QAL-NP corresponding to 0.155, 0.31 and 0.62 mg/mL of QAL. CTRL: bacteria without treatment. CG: carrageenan was tested at the concentration of 0.1 mg/mL corresponding to the concentration of CG present in QAL-NPs equivalent at 0.62 mg/mL of QAL. Results are expressed as the means and error standard of the mean from three independent experiments. (*p<0.05; **p<0.01; ***p<0.001).