Supplementary Information

Sputum active polymyxin lipopeptides: Activity against Cystic Fibrosis *Pseudomonas aeruginosa* isolates and their interactions with sputum biomolecules

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Number of pages: 6 Number of figures:5 Number of tables:0

Figure S1

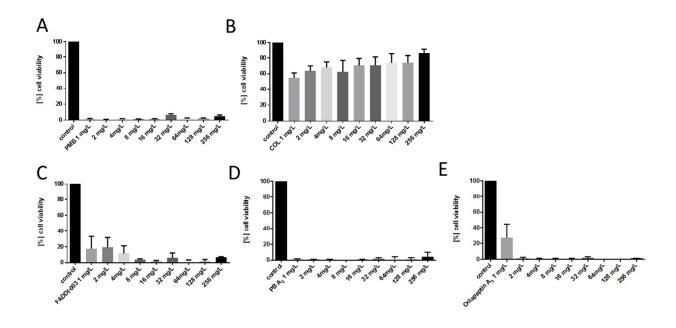


Figure S1. Activity of (**A**) polymyxin B; (**B**) colistin; (**C**) FADDI-003; (**D**) polymyxin A_2 and (**E**) octapeptin A_3 against the *P. aeruginosa* reference strain FADDI-PA021 grown under planktonic conditions in artificial sputum media. Data are presented as the mean ±SD (n=3).

Figure S2

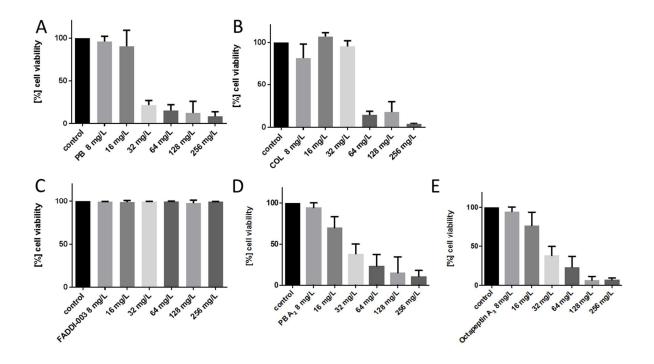


Figure S2. Activity of (**A**) polymyxin B; (**B**) colistin; (**C**) FADDI-003; (**D**) polymyxin A_2 and (**E**) octapeptin A_3 against the *P. aeruginosa* reference strain FADDI-PA021 grown under biofilm conditions in artificial sputum media. Data are presented as the mean ±SD (n=3).

Figure S3

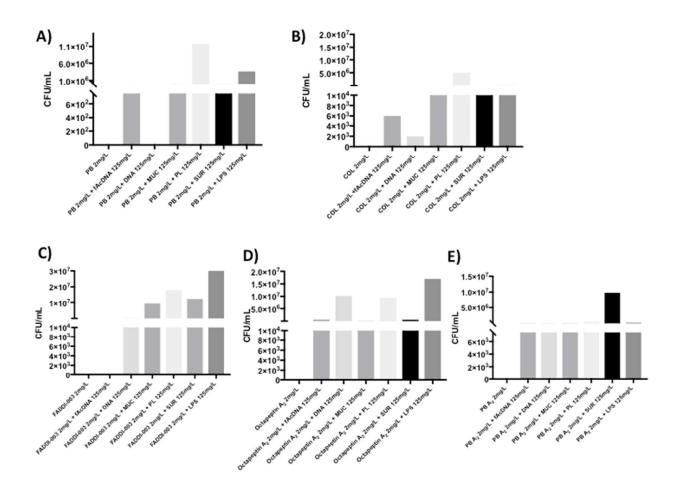


Figure S3. Influence of sputum biomolecules at 125 mg/L on the activity of (**A**) polymyxin B; (**B**) colistin; (**C**) FADDI-003; (**D**) octapeptin A₃ and (**E**) polymyxin A₂ against the *P*. *aeruginosa* reference strain FADDI-PA021. Data are presented as the mean \pm SD (n=3).

- PL phospholipids
- SUR surfactant
- LPS lipopolysaccharide

fAcDNA - f-Actin and DNA

MUC - mucin

Figure S4

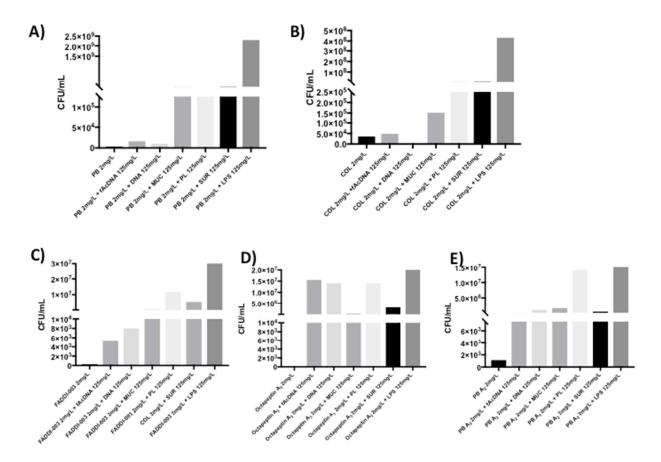


Figure S4. Influence of sputum biomolecules at 125 mg/L on the activity of (**A**) polymyxin B; (**B**) colistin; (**C**) FADDI-003; (**D**) octapeptin A₃ and (**E**) polymyxin A₂ against *P*. *aeruginosa* FADDI-PA020. Data are presented as the mean \pm SD (n=3).

MUC - mucin

PL - phospholipids

SUR - surfactant

LPS - lipopolysaccharide

fAcDNA - f-Actin and DNA

Figure S5

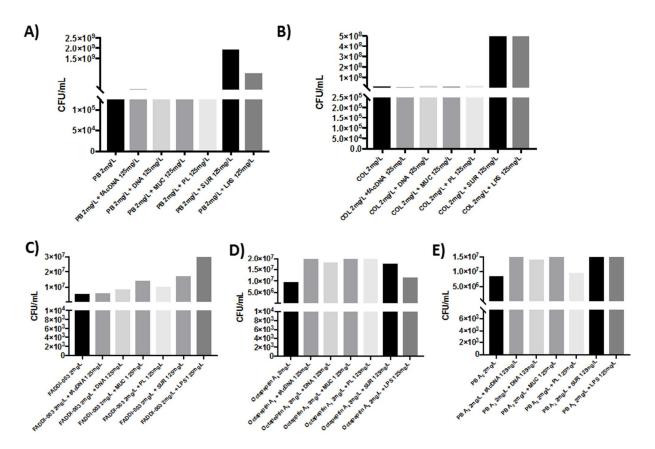


Figure S5. Influence of sputum biomolecules at 125 mg/L on the activity of (**A**) polymyxin B; (**B**) colistin; (**C**) FADDI-003; (**D**) octapeptin A₃ and (**E**) polymyxin A₂ against *P*. *aeruginosa* FADDI-PA066. Data are presented as the mean \pm SD (n=3).

fAcDNA - f-Actin and DNA

MUC - mucin

PL - phospholipids

SUR - surfactant

LPS - lipopolysaccharide