The proline-rich antimicrobial peptide B7-005: low bacterial resistance, safe for human cells and effective in zebrafish embryo bacteraemia model.

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SUPPLEMENTARY MATERIAL

Table S1. MIC values of B7-005, Bac7(1-16), Bac7(1-35), chloramphenicol, rifampicin and colistin against *E. coli* ATCC 25922 after each selection cycle.

Experiment 1	MIC values (µM)					
N° of cycles	B7-005	Bac7(1-16)	Bac7(1-35)	Chloramphenicol	Rifampicin	Colistin
1	1	1	0.5	16	8	0.5
2	1	2	1	64	32	0.25
3	1	4	2	128	128	0.125
4	1	2	2	256	512	0.25
5	1	8	16	512	512	0.25
6	1	16	8	512	512	0.25
7	1	32	16	512	1024	0.125
8	0.5	64	32	1024	-	0.25
9	0.5	64	128	1024	-	0.25
10	1	128	128	1024	-	0.125
11	1	128	128	1024	-	0.125
12	2	128	128	1024	-	0.25
13	4	128	128	1024	-	0.25
14	8	128	128	1024	-	0,125

Table S2. MIC values of B7-005, Bac7(1-16), Bac7(1-35) against *E. coli* ATCC 25922 after each selection cycle.

Experiment 2	MIC values (μM)		
N° of cycles	B7-005	Bac7(1-16)	Bac7(1-35)
1	1	1	1
2	1	2	1
3	1	4	2
4	1	8	2
5	2	8	4
6	1	32	16
7	2	64	32

Setting up of an *E. coli* bacteraemia model in zebrafish embryos

Increasing amounts of viable *E. coli* cells in PBS were injected into the bloodstream of the animals and the survival rate of the animal was evaluated after infections. A bacterial load of 4000 *E. coli* ATCC 25922 cells was used for experiments as it killed 70% of the animals within 24 h after inoculation and 75% of the animals within 72 h after inoculation (Figure S1).
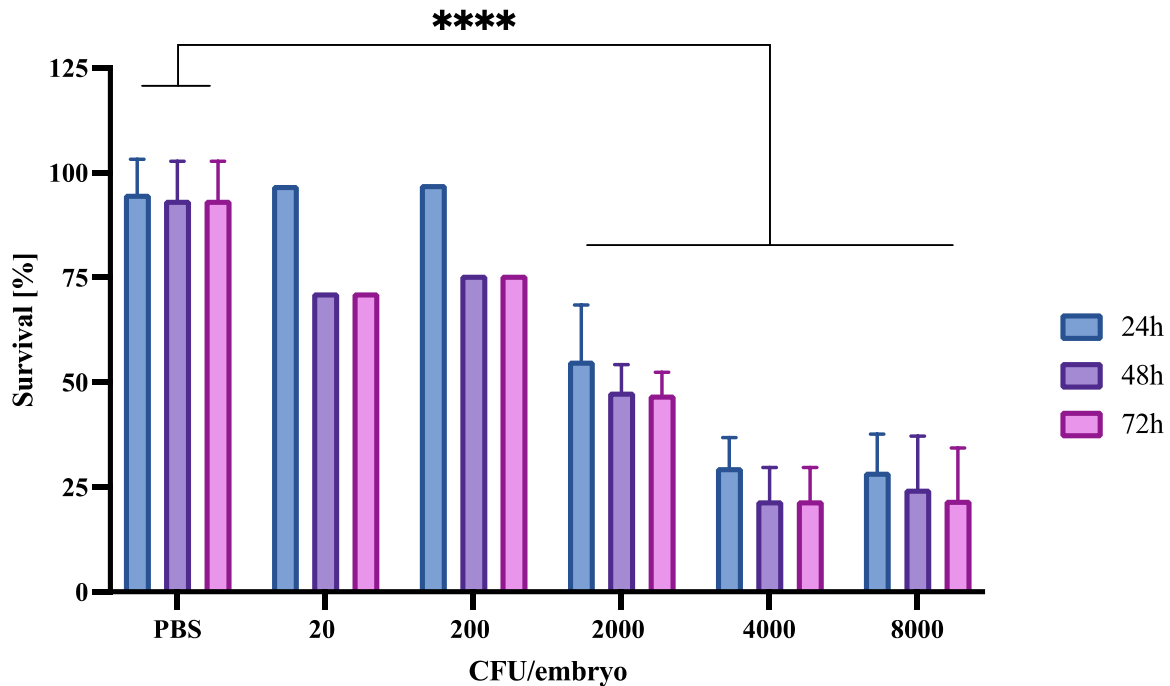
Figure S1. Survival of zebrafish embryos challenged with increasing number of *E. coli* cells (CFU) at different time-point after infection. Groups of embryos were injected with PBS only instead of *E. coli* cells, as a control. Error bars are the standard deviation calculated on the average of three independent experiments. 2 ways ANOVA test.