# Characterization and Protective Properties of Lactic Acid Bacteria Intended to Be Used in Probiotic Preparation for Honeybees (*Apis mellifera* L.)—An In Vitro Study

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**Table S4.** Impact of the cell-free culture supernatants (CFS) from lactic acid bacteria (LAB) strains on the viability of Caco-2 cells. Results are presented as mean (from 8 measurements) ± standard deviation (SD). The effect of CFS from LAB on Caco-2 cell survival rate has been tested using the Kruskal–Wallis test (KW test), followed by a multiple comparison test (MCT) to indicate significant differences between the groups at $p<0.05$. Statistical differences in Caco-2 survival between LAB in each CFS concentration are indicated with $^{A\text{-}N}$.

| LAB strain | Concentration of CFSs | | | |
|---|---|---|---|---|
| | 1% | 5% | 10% | 20% |
| *A. kunkeei* DSM 12361 | 115.73 ± 7.75 $^{A,B}$ | 126.25 ± 13.72 $^{A,B}$ | 114.53 ± 11.86 | 78.72 ± 6.66 $^{A,B,C,D}$ |
| *P. acidilactici* 4/1 | 93.28 ± 7.2 $^{A,C}$ | 97.91 ± 10.03 $^{A,C}$ | 94.39 ± 7.12 $^{A,B}$ | 34.91 ± 10.46 $^{E}$ |
| *P. pentosaceus* 5/2 | 103.44 ± 9.44 | 109.30 ± 9.72 | 124.42 ± 6.71 $^{A,C,D,E}$ | 89.81 ± 8.74 $^{E,F,G,H,I,J,K}$ |
| *P. pentosaceus* 7/1 | 101.65 ± 6.89 $^{D}$ | 116.65 ± 4.69 $^{D}$ | 100.24 ± 8.70 $^{F}$ | 45.80 ± 8.83 |
| *P. acidilactici* 11/3 | 105.68 ± 11.55 | 108.71 ± 6.88 | 91.12 ± 15.50 $^{C,G}$ | 29.80 ± 8.12 $^{A,F,K}$ |
| *P. pentosaceus* 14/1 | 97.50 ± 7.41 $^{E}$ | 112.16 ± 12.23 | 110.53 ± 10.05 | 36.58 ± 5.89 |
| *P. acidilactici* 18/1 | 101.08 ± 8.81 $^{F}$ | 108.00 ± 7.86 $^{E}$ | 94.49 ± 17.49 $^{D,H}$ | 30.26 ± 3.51 $^{B,G,L}$ |
| *P. acidilactici* 21/1 | 102.28 ± 5.66 | 109.54 ± 6.59 | 100.06 ± 9.62 $^{I}$ | 34.09 ± 3.08 $^{H}$ |
| *P. pentosaceus* 25/1 | 102.73 ± 7.82 | 101.47 ± 10.09 $^{F}$ | 107.60 ± 7.38 | 75.65 ± 15.12 $^{K,L,M,N}$ |
| *L. casei* 12AN | 164.53 ± 17.88 $^{C,D,E,F,G}$ | 144.41 ± 10.29 $^{C,E,F,G}$ | 157.26 ± 24.80 $^{B,F,G,H,I,J}$ | 30.17 ± 3.48 $^{C,I,M}$ |
| *P. pentosaceus* OK-S | 97.48 ± 6.31 $^{B,G}$ | 95.7 ± 7.55 $^{B,D,G}$ | 90.53 ± 20.46 $^{E,J}$ | 30.92 ± 5.05 $^{D,J,N}$ |
| *p*-values (KW test) | $^{A}$ 0.0029; $^{B}$ 0.05; $^{C}$ 0.000; $^{D}$ 0.0351; $^{E}$ 0.0008; $^{F}$ 0.0077; $^{G}$ 0.0007 | $^{A}$ 0.0097; $^{B}$ 0.0026; $^{C}$ 0,000; $^{D}$ 0.0272; $^{E}$ 0.0426; $^{F}$ 0.0008; $^{G}$ 0.000 | $^{A}$ 0.0048; $^{B}$ 0.0002; $^{C}$ 0.0073; $^{D}$ 0.0351; $^{E}$ 0.0065; $^{F}$ 0.0137; $^{G}$ 0.0003; $^{H}$ 0.0021; $^{I}$ 0.0127; $^{J}$ 0.0003 | $^{A}$ 0.002; $^{B}$ 0.0066; $^{C}$ 0.0052; $^{D}$ 0.0062; $^{E}$ 0.0069; $^{F}$ 0.0001; $^{G}$ 0.0005; $^{H}$ 0.0303; $^{I}$ 0.0004; $^{J}$ 0.0005; $^{K}$ 0.0023; $^{L}$ 0.0074; $^{M}$ 0.0059; $^{N}$ 0.007 |