**Titre d’article :** Bacteriocinogenic properties of Escherichia coli P2C isolated from pig gastrointestinal tract: purification and characterization of microcin V

**Résumé :**

The aim of this study was to isolate and investigate the bacteriocinogenic and probiotic potential of new Gram-negative isolates. Of 22 bacterial isolates from pig intestine and chicken crops, ten isolates had demonstrated a good activity, and the most potent five strains were identified as four *E. coli* and one as *Proteus* sp. No virulence factors were detected for *E. coli* strains isolated from pig intestine. The semi-purified microcins proved to be resistant to temperature and pH variation, but sensitive to proteolytic enzymes. Of particular interest, strain *E. coli* P2C was the most potent, free of virulence genes and sensitive to tested antibiotics. Purification procedure revealed the presence of a single pure peak having a molecular mass of 8733.94 Da and matching microcin V (MccV). The sequence obtained by LC–MS/MS confirmed the presence of MccV. Purified MccV showed a good activity against pathogenic coliforms, especially *E. coli* O1K1H7 involved in avian colibacillosis. The present study provides evidence that *E. coli* strains isolated from pig intestine produce microcin-like substances. *E. coli* P2C is a safe MccV producer that could be a good candidate for its application as novel probiotic strain to protect livestock and enhance growth performance.