

Antimicrobial Potential of Corms from Plants of Genus *Xanthossoma*

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Hospital infection is a serious problem in Latin American in 3-15% of patients in public hospitals, leading in some cases to death. This situations is aggravated for disordered uses of the antimicrobial chemotherapy, wich could generate resistant microorganisms. Therefore, novel antibiotics with different mechanisms of action need to be urgently developed. For this reason, the present study evaluated the antibacterial activity of proteins isolated from corms of 15 species of *Xanthossoma* genus against five different pathogenic bacterial strains (*Staphylococcus aureus*, *Salmonella* sp., *Escherichia coli*, *Proteus* sp. and *Klebsiella pneumonia*). For protein isolation, corms were triturated with an extraction solution (0.6 M NaCl and 0.1% HCl) and were precipitated with (NH₄)₂SO₄ (100%), following dialysis (3.5 kDa *cut off*). After dialysis, a protein rich-fraction was applied onto a reversed phase semi-preparative HPLC column (Vidac C-18 TP510) where retained fraction was eluted using a linear gradient of acetonitrile (0-100%) at a flow rate of 1.0ml/min. Peaks were separately evaluated, showing that fraction from *X. blandum* eluted with 38 % of acetonitrile and fraction from *X. sagittifolium* eluted with 62 % exhibited major antimicrobial activity against *Salmonella* sp. (62%) and *E. coli* (45%), respectively. Tris-Tricine gel analyses of *X. blandum*, HPLC fraction showed the presence of a single protein with approximately 24 kDa. N-termini sequence, determined by Edman degradation showing no similarity to other proteins deposited in data bank. In conclusion, results here reported indicate that, in a near future, proteins isolated from corms of *Xanthosoma* genus could be utilized in the future on the development of novel proteinaceous antibiotics.

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