

Biological Activities of Bioactive Molecules Extracted from *Moringa oleifera* Seeds

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Bioactive molecules have been isolated from seeds of *Moringa oleifera*. The seeds have been used to treat water for human consumption due to its coagulant properties. Additionally the absence of bacterial contamination in water treated with *Moringa* seeds has been described. Seeds of plants are a source of lectins, proteins that interact with carbohydrates and promote agglutination of erythrocytes. The ability to interaction of lectins with carbohydrates results in antimicrobial and insecticide activities found in these proteins. Activity hemagglutinating (HA) has been identified in seed extract of *M. Oleifera* and lectin (WSMoL) was isolated by chromatography on chitin column. The objectives of this study were to isolate WSMoL through previously established protocol, evaluate the antimicrobial activities on *Staphylococcus aureus* and *Escherichia coli* and insecticide on *Callosobruchus maculatus* of *Moringa* seed preparations. For isolation of WSMoL, the seed extract (10%) was fractionated with ammonium sulfate and the fraction (F) with highest specific AH (F0-60%) was chromatographed on column of chitin. WSMoL was eluted with acid acético 1 M. WSMoL was isolated of others coagulant compounds by chromatography on chitin column. Antibacterial and insecticide activities were found in preparations of *M. Oleifera*. The biological activities detected indicate the biotechnology potential of WSMoL.

Keywords: Lectin; *Moringa oleifera*; antibacterial activity; insecticide activity.
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