**TITLE:** ANTIMICROBIAL ACTIVITY OF ETHYL ACETATE EXTRACT DE *Cinnamomum amoenum* (Ness) Kosterm. (LAURACEAE) FRONT OF THE DIFFERENT SOROTYPES OF SALMONELLA spp.

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**ABSTRACT:**
Considered one of the most abundant countries in plant species, Brazil offers a wide area for research with bioactive compounds, becoming an alternative to numerous problems regarding the resistance of microorganisms pathogenic to antimicrobials. In view of the above, it is important to note that research using the *Cinnamomum amoenum* are scarce, so the objective of this work was to identify the bioactive compounds present in their leaves and to evaluate the antimicrobial activity against the following *Salmonella enteric serotypes*: Newport, Gallinarum, Mbandaka, Typhimurium and Agona. To obtain the extract of ethyl acetate, the leaves were dried at 40º C and ground in a knife mill. Methanol P.A. was added to powder of the plant leaf in the ratio of 1:10 (w/v). After, it was placed on a rotary shaker for 24 hours. Finally, the mixture was centrifuged at 5000 rpm (revolutions per minute) for 15 minutes, then vacuum-pump-filtered and evaporated to remove the solvent completely.The extract was evaluated at concentrations between 200 mg/mL to 0,09 mg/mL, by means of the broth microdilution test. The bacterial metabolism was verified with the use of triphenyltetrazolium chloride (TTC) at 0,5%, from a colorimetric reaction. As a positive control, gentamicin at 200 mg/mL was used. Phytochemical tests revealed the presence of anthocyanins, flavonoids and steroids. As for antimicrobial activity, ethyl acetate extract was more efficient for the serotypes S. Newport and S. Gallinarum with MIC e MBC of 25 mg/mL and 50 mg/mL, respectively. The serotypes *S*. Mbandaka, *S*. Typhimurium and *S.* Agona has MIC of 50 mg/mL and MBC of 100 mg/mL. In view of the results, we can conclude that the ethyl acetate extract of *C. amoenum* has bacteriostatic and bactericidal potential against serotypes of *Salmonella* spp. tested. It is important to emphasize that complementary studies regarding their biological activities are necessary to validate their use.

**Keywords:** *Cinnamomum amoenum*, *Salmonella spp.*, plant extracts, antimicrobian activity

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