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# *MEROTERPENOIDS FROM ROOTS OF Piper* aff. *divaricatum AND Piper mosenii*

The Piperaceae family include a vast diversity of species globally, with Brazil harboring a significant number of genera and species. Within this context, the genus *Piper* exhibits the greatest species diversity. Among its representatives, *Piper* aff. *divaricatum* - a recently identified species – and *P. mosenii* have been the subject of a few chemical studies. This study reports the phytochemical investigation of hexane crude extracts from the roots of both species and its evaluation of antimicrobial activity. The extract from *P.* aff *divaricatum* was subjected to various chromatographic techniques, and subsequent structural elucidation was performed using spectroscopic methods ($^{1}$H and $^{13}$C NMR, including 1D and 2D experiments) which afforded compounds **1-3**. The hexane extract from *P. mosenii* led to the formation of crystals (compound **4**) that were analyzed by single-crystal X-ray diffraction (XRD). Four meroterpenes were described that included two chromenes, named (*E*)-2-(4',8'-dimethylnona-3',7'-dien-1-yl)-2-methyl-2H-chromene-6-carboxylic acid methyl ester (**1**), (*E*)-2-(4',8'-dimethylnona-3',7'-dien-1-yl)-8-hydroxy-2-methyl-2H-chromene-6-carboxylic acid methyl ester (**2**), and two benzoic acid derivatives named (*E*)-4-(3',7'-dimethylocta-2',6'-dien-1-yl)-3-hydroxybenzoic acid methyl ester (**3**) and 3-(1'-oxo-3'-methyl-2'-butenyl)-4-hydroxybenzoic acid methyl ester (**4**). Compound **1** is described for the first time in the literature. Futhermore, the antibacterial activity of the hexane extracts from *P.* aff *divaricatum* and *P. mosenii* demonstrated selective inhibition against *Staphylococcus epidermidis* (MIC 0.062 and 0.125 mg mL$^{-1}$, respectively), and *Escherichia coli* (MIC 0.031 and 0.25 mg mL$^{-1}$, respectively). Only *P.* aff *divaricatum* showed activity against *Staphylococcus aureus* (MIC 0.015 mg mL$^{-1}$). The chromatographic fractions from *P.* aff *divaricatum* that furnished compounds **1-3** exhibited broader antimicrobial activity, effectively inhibiting *S. aureus* (MIC 0.0078 mg mL$^{-1}$), *S. epidermidis* (MIC 0.125 mg mL$^{-1}$), *E. coli* (MIC 0.50 mg mL$^{-1}$) and *C. albicans* (MIC 0.078 mg mL$^{-1}$). The classes of isolated compounds are known for their pharmacological potential.

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