



PHYTOCHEMICAL INVESTIGATION OF PIPER HISPIDUM LEAVES: IDENTIFICATION AND CHARACTERIZATION OF FIXED CONSTITUENTS.

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Piper hispidum Sw., belonging to the family Piperaceae and popularly known in Brazil as jaborandi, is widely employed in traditional medicine, mainly for the treatment of inflammations, pain, and gastrointestinal disorders [1]. In parallel, the species has attracted scientific interest due to the presence of bioactive compounds with recognized therapeutic potential, which exhibit, among others, antioxidant, antimicrobial, antiplasmodial, and cytotoxic activities [2]. However, although the essential oils of *P. hispidum* have been extensively studied, the fixed constituents remain relatively unexplored, thus limiting a comprehensive understanding of the species' pharmacological potential. In this context, the present study aimed to expand knowledge regarding the fixed secondary metabolites of *P. hispidum* leaves, highlighting the occurrence of a flavonoid reported for the first time in this species. The leaves were collected in a secondary forest area, dried in an oven at 35 °C, pulverized, and subjected to exhaustive cold extraction with methanol, yielding the crude extracts. These were successively fractionated by liquid-liquid partition with solvents of increasing polarity and subjected to silica gel column chromatography (70–230 and 230–400 mesh), which enabled the isolation of the fixed constituents. Subsequent phytochemical analysis revealed the presence of the steroids β -sitosterol and stigmasterol, in addition to the flavonoid 5,7,4'-trihydroxyflavanone, identified for the first time in *P. hispidum*. Structural elucidation was based on 1D and 2D NMR data, corroborated by comparison with the literature. In summary, the isolated fixed constituents represent promising substances for future biological investigations, thereby reinforcing the importance of phytochemical exploration of this species in the context of the prospection of secondary metabolites with pharmacological relevance.

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[2] Salleh, W. M. N. W., et al. (2021). Traditional uses, chemical profile and biological activities of *Piper hispidum* Sw.: A review. *Biointerface Res. Appl. Chem.*, 11(5), 131–513.

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