Anti-bacterial activities and phytochemical screening of extracts of different parts of Thalictrum rhynchocarpum.

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Abstract

Parts of the plant Thalictrum rhyncocarpum are used in herbal medicine in Kenya to treat various infections. The aim of this study was to evaluate in-vitro anti-bacteria activities and phytochemical profiles of solvent extracts of the leaves, stem bark and root of Thalictrum rhyncocarpum against Bacillus subtilis-6633, Staphylococcus aures-SG 511, Escherichia coli SG 458, Pseudomonus aeruginosa-K799/61 and Mycobacterium vaccae-10670. Anti-bacterial activity tests were carried out using disc diffusion assay and tube dilution technique, and phytochemical screening was carried out through Thin Layer Chromatography. The crude extracts showed antibacterial effects on M. vaccae, P. aeruginosa and B. subtilis. M. vaccae was most sensitive, particularly to the methanol root extract. Phytochemical screening of the extracts suggested the presence of glycosides and alkaloids in the stem bark and root extracts, and flavonoids and triterpenes in the leaf extracts. The study showed interesting levels of activities of solvent extracts of different parts of T. rhyncocarpum against some of the bacteria tested (M. vaccae, P. aeruginosa and B. subtilis). The results provide some scientific rationale for the traditional use of the plant in Kenya to treat

different microbial infections.

Beteiligte Forschungseinheiten

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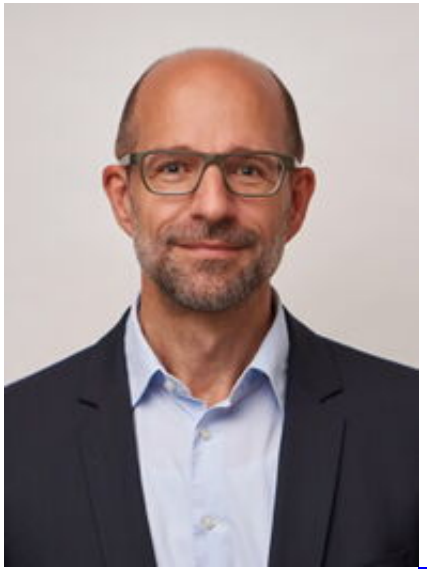

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