

Entada rheedii seeds thioamides, phenolics, and saponins and its antiulcerogenic and antimicrobial activities

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Abstract

Entada rheedii (Fabaceae) seeds are used against diarrhea and stomach aches. This study aims at scientifically validate its ethnomedicinal uses. Seeds ethanol (70%) extract (EE) was prepared by percolation. Antibacterial and antiviral activities of EE and isolated compounds were determined using agar well diffusion and MTT assays, respectively. Anti-ulcerogenic activity was evaluated using ethanol-induced ulcer model. Four phenolics: protocatechuic acid C1, protocatechuic acid methyl ester C2, 1,3,4-trihydroxybenzene glucoside C3, phaseoloidin C4, three thioamides: entadamide A C5, entadamide A- β -d-glucopyranoside C6, entadamide C C7, and two saponins: rheedeioside A C8 and rheedeioside B C9 were isolated from EE. EE, C4, C5, and C8 evidenced significant ($p < 0.05$) antiulcerogenic activity. Strong antibacterial activity was reported for EE, C1, and C7. C4 exhibited moderate (35% inhibition) antiviral activity. This study provides scientific validation of the seed ethnomedicinal use in treating gastric ailments and as antimicrobial.

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