Abstract

The volatile oil from the stem bark of Scutia buxifolia (Rhamnaceae) has been obtained by hydrodistillation and analyzed by GC-MS. Twenty-one components were identified representing 99.93 % of the total oil composition, spathulenol (35.87%), -cubebene (17.26%), germacrene D (6.43%), linalool (5.19%), carvacrol (4.05%) were the main components of S. buxifolia essential oil. Antioxidant and antimicrobial properties of the essential oil were evaluated by free radical scavenging (DPPH) assay and micro broth dilution method, respectively. S. buxifolia essential oil presented interesting radical scavenging activity (IC50 = 15.03 ± 0.11 g/mL). The antibacterial assay showed that S. buxifolia stem bark essential oil was moderately active against the Staphylococcus aureus and Micrococcus sp. (MIC = 500 g/mL) and Escherichia coli (250 g/mL). To the best of our knowledge, this is the first study on the composition, antioxidant and antimicrobial activities of essential oil from the S. buxifolia collected from Brazil.

Keywords

Scutia buxifolia, essential oil, antioxidant, antimicrobial.