Antioxidant and Antimicrobial Activities of Essential Oil and
Extracts of Saurauia lantsangensis Hu Root
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Antioxidant and antimicrobial activities of the essential oil and n-hexane (HEE), chloro-
form (CHE), ethyl acetate (EAE), and methanol (MEE) extracts, respectively, from the
root of Saurauia lantsangensis Hu were investigated. The GC-MS analysis revealed 39
compounds representing 96.41% of the oil containing T-muurolol (13.85%), acetophenone
(7.46%), Ê-cadinol (6.26%), methyl palmitate (5.36%), n-hexadecanoic acid (4.31%), tor-
reyol (3.69%), and isospathulenol (3.48%) as major components. Antioxidant activities
determined by three various testing systems, i. e. DPPH radical scavenging, superoxide
anion radical scavenging, and reducing power assay, increased in the order: HEE < CHE
< oil < MEE < EAE. CHE, EAE, MEE and oil exhibited a promising antimicrobial effect
determined as the diameter of zones of inhibition (13.3 – 16.2, 16.5 – 20.4, 13.5 – 16.6, and
16.5 – 22.7 mm), respectively, along with their respective MIC values (500 – 1000, 125 – 500,
250 – 500, and 250 – 500 µg/ml) against Gram-negative bacteria (Pseudomonas aeruginosa,
Escherichia coli), Gram-positive bacteria (Bacillus subtilis, Staphylococcus aureus), and a
yeast (Hansenula anomala).

Key words: Antioxidant, Antimicrobial, Saurauia lantsangensis Hu