P-78

Standardization OF Piper Sarmentosum Roxb. Leaf Material and Extracts

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Piper sarmentosum Roxb. (Piperaceae) or Kadok, a herbaceous shrub is well known in South East Asian countries due to its medicinal properties. However, there is still a lack of data on the qualitative and quantitative parameters of *P. sarmentosum*. The purpose of this study is to standardize the leaf materials and its extracts to ascertain the quality, safety and efficacy. Standardization of the plant material was performed by using physico-chemical tests, UV and FTIR spectroscopy, HPTLC and HPLC analysis. The moisture content and total ash content was 7.40% and 10.81%. Cold extractive values of ethanolic extract and water extract were 10.90%, and 23.77%, respectively. Hot extractive values of the above mentioned extracts were 17.30% and 29.99%, respectively. IR spectra of leaf powder indicated bands at 3350 cm⁻¹ (-OH), 2918-2850 cm⁻¹ (C-H), 1615-1500 cm⁻¹ (aromatic domain band) and 1200-1100 cm⁻¹ (alkenes). UV profile of aqueous and ethanol extracts exhibited maximum absorption at 270nm. The absorption from 350-250nm is characteristic to aromatic amides and phenolic compounds. Thin layer chromatography and high performance liquid chromatography analysis were performed using piperine as external standard. The results of this study can serve as reference data for *P. sarmentosum* leaves.

Keywords: Standardization, *Piper sarmentosum*, Piperaceae, piperine.