

## **HORTONIA ANGUSTIFOLIA DOES NOT CONTAIN DPPH SENSITIVE ANTIOXIDANT ALKALOIDS**

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### **Introduction**

Plants of family Monimiaceae are known to elaborate a variety of alkaloids some of which are reported to have interesting pharmacological properties. In Sri Lanka the family Monimiaceae is represented by the endemic genus *Hortonia* and the most recent revision of the family Monimiaceae by Dassanayake (1996) recognizes three species of *Hortonia*; *H. floribunda* Wight ex. Arn, *H. ovalifolia* Wight and *H. angustifolia* (Thw.) Trimen. The overall aims of this current study were to locate, isolate, identify and evaluate novel bioactive alkaloids from endemic species *Hortonia angustifolia* of family Monimiaceae. There is no reported phytochemical work on alkaloids of genus *Hortonia*.

### **Materials and Methods**

#### **Plant material**

Leaves and stems of *Hortonia angustifolia* (Thw.) Trimen were collected from Kanneliya in the Southern Province of Sri Lanka. A voucher specimen (*H. angustifolia*: PDA 526) was deposited at the National Herbarium, Peradeniya, Sri Lanka.

#### **Extraction and isolation**

Air dried, powdered leaves and stems of *H. angustifolia* (304 g) were sequentially extracted into CH<sub>2</sub>Cl<sub>2</sub>

and MeOH (2×24 hrs) at room temperature. Evaporation of the solvents gave the respective extracts.

#### **Alkaloid extraction**

The CH<sub>2</sub>Cl<sub>2</sub> extract was dissolved in CHCl<sub>3</sub> and was partitioned with 2 N HCl. The acidic portion was basified with 25 % NH<sub>4</sub>OH and extracted with CHCl<sub>3</sub>. The CHCl<sub>3</sub> layer which was positive to alkaloidal test with Dragendroff's reagent was dried and evaporated in vacuo (35 °C) to leave a brownish coloured crude alkaloid mixture (65 mg). Alkaloid extraction from MeOH extract was carried out according to a slightly modified method of Chang *et al.*, (1998). MeOH extract was partitioned to yield CHCl<sub>3</sub> and aqueous extracts. The bases in the CHCl<sub>3</sub> layer were extracted with 2 N HCl and the acidic layer was basified with 25 % NH<sub>4</sub>OH and then extracted with CHCl<sub>3</sub> which was dried and evaporated in vacuo to leave a brown viscous residue (300 mg).

#### **Antioxidant assay**

The test solution was prepared by mixing 40 µL aliquot of the 500 ppm methanolic plant solution with 3.00 mL of 1 × 10<sup>-4</sup> M 1, 1-diphenyl-2-picryl-hydrazil radical (DPPH) solution. Absorbance was read immediately at 515 nm spectrophotometrically with data

