

Phytochemical Screening of root aqueous extract of *Arnebia euchroma*

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Abstract

The present study was conducted to evaluate the *in vitro* properties of root aqueous extract of *Arnebia euchroma*. The preliminary phytochemical screening of the aqueous plant extract under *in vitro* situations was observed.

Key words: Phytochemical screening, Alkaloids, tannins, saponins.

Arnebia euchroma :- Herbs perennial. Roots stout, to 2 cm in diam., containing copious purple dye. Stems usually 1 or 2, erect, branched above, sheathed with remaining bases of leaves, 15-40 cm tall, spreading white or pale yellow hirsute. Leaves sessile, sparsely semiappressed hirsute. Basal leaves linear to linear-lanceolate, 7-20 × 0.5-1.5 cm, base sheathlike, apex short acuminate; stem leaves lanceolate to linear-lanceolate, smaller without sheathlike base. Cymes terminal, 2-6 cm at anthesis, many flowered; bracts lanceolate. Flowers heterostylous. Calyx lobes linear, 1.2-1.6 cm, to 3 cm in fruit, densely pale yellow hirsute on both sides, apex subacute. Corolla dark purple, sometimes pale yellow and purple-red tinged, tubular-campanulate, glabrous or sparsely short pubescent outside; tube straight, 1-1.4 cm; limb 6-10 mm wide; lobes spreading, ovate.^{1,2}

Experimental Methodology (photochemical screening):

Alkaloids

Dagendroff's test

Dissolve few mg of aqueous extract in 5 ml of distilled water, add 2 M HCl until an acidic reaction occurs, then add 1ml of Dragendroff's reagent, an orange or orange red ppt. Produced immediately³.

Saponins

Small quantity of aqueous extract is mixed some drops of sodium bicarbonate and leave for 5 minutes. Heavy comb like froth is formed

(Harborne, 1973; Sofowora, 1993⁴).

Tannins Ferric chloride test: To 1-2ml of aqueous extract add few drops of 5% aq. Ferric chloride solution, a bluish black color is produced which disappears on addition of a few ml of dil. Sulphuric acid solution followed by the formation of a yellowish brown ppt^{3,5}.

Glycosides:

Dissolve a small quantity of aqueous extract after drying in 1 ml of water and add NaOH solution, a yellow color indicates the presence of glycosides.

Phenols : Ferric chloride test; Dissolve a small quantity of aqueous extract in 2ml of Distilled Water, add a few drops of 10% aqueous ferric chloride solution. A blue or green color is produced⁶.

Results:	(+=present, -=absent)
Alkaloids	++
Saponins	+++
Tannins	++
Glycosides	--
Phenols	+

Results showed that the a queous extract of *Arnebia euchroma* possessed strong phytochemical constituents activity.

Our study demonstrated the root aqueous extract of *Arnebia euchroma* shows high phytochemical constituents and antioxidants.

References

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