

## **TLC Fingerprint profile analysis of leaf extracts of six antidiabetic medicinal plants widely used in Sri Lanka.**

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At present quality assurance of herbal products is highly important along with the scientific validation. Chromatographic fingerprinting is one of the widely used approaches in quality control of herbal medicine. This study was aimed at the development of TLC fingerprint profiles of aqueous and alcoholic extracts of the leaves of six widely used antidiabetic herbal plants in Sri Lanka; *Costus speciosus* (Thebu), *Scoparia dulcis* (Walkoththamalli), *Cassia auriculata* (Ranawara), *Gymnema sylvestre* (Masbadda), *Coccinia grandis* (Kowakka) and *Averrhoa carambola* (Kamaranga). The phytochemical screening was carried out for the alcoholic extract of each leaf. The best solvent system, which gave both the maximum number and the highest separation of compounds, was identified for each extract. According to the results of phytochemical screening, secondary metabolites like alkaloids, flavonoids, terpenoids and saponins were identified and labeled them with corresponding  $R_f$  values for different leaf extracts. The comparative TLC analysis of the extracts were also carried out to identify compounds those have the same  $R_f$  values in different leaf extracts.

**Keywords:** TLC fingerprint, medicinal plants, antidiabetic, secondary metabolites.

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