

**Application of two dimensional thin layer chromatography pattern comparison for fingerprinting the active compounds in the leaves of Vitex trifolia Linn possessing anti-tracheospasmodic activity.**

ABSTRACT

We have developed one approach to fingerprint and estimate the active compounds in the leaves of Vitex trifolia Linn possessing anti-tracheospasmodic assay using two-dimensional TLC pattern comparison. Based on the two-dimensional TLC pattern and the activity of the centrifugal partition chromatography fractions, we concluded that the semi polar compounds were responsible for anti-tracheospasmodic activity. The best non-polar/semi polar mobile phases for the two-dimensional TLC using silica gel as the stationary phase were chloroform/methanol (9/1) as the first mobile phase and ethyl acetate/chloroform/methanol (28/28/44) as the second mobile phase.

**Keyword:** Asthma; Centrifugal partition chromatography; Fingerprinting; Thin layer chromatography; Tracheospasmodic assay; Vitex trifolia Linn.