

## ABOUT THE STANDARDIZATION OF *FABIANA IMBRICATA*

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Scopoletin ( $\beta$ -methylesculetin) is a major secondary metabolite component of the terminal branchlets of *Fabiana imbricata* RUIZ and PAV. (*Solanaceae*) a South-American drug (common name pichi-pichi) used to treat kidney and bladder pains [1]. Bearing in mind that scopoletin possesses an analgesic activity [2] and antiinflammatory properties [3], we think that some applications of *Fabiana imbricata* could be explained by the presence of this metabolite. Moreover, scopoletin was shown to inhibit the formation of leucotrienes in polymorphonuclear leukocytes [4].

As the other hydroxylated coumarins, scopoletin shows a blue fluorescence under UV light (366 nm). This property was used for the quantitative estimation of scopoletin in this drug by direct densitometry of chromatographically separated zones on silicagel layers.

We measured the fluorescence of scopoletin contained in three different commercial batches. The measurement was achieved by means of a Desaga TLC Scanner programmed to work in reflection-fluorescence at 361 nm (mercury lamp).

We respected the following chromatographic procedure [5]:

- Layer: TLC plates Silica gel 60 Merck
- Mobile phase: Toluene-ether-acetic acid solution (10%)  
(50 + 50 +50)
- The upper organic phase was employed
- Migration distance: 10 cm
- Standard solution: 4 mg of Scopoletin RCS were solubilized in 50 ml of MeOH
- Sample solution: 0.250 g of pichi-pichi were extracted by 25 ml MeOH at 40°C
- Applications of 3-5-10  $\mu$ l for the standard and 10  $\mu$ l for samples
- *R<sub>f</sub>* of Scopoletin ca 0.30

After linearisation, the concentration of Scopoletin was estimated by measurement of the different standards and samples mean areas. In our findings, scopoletin content ranged from 0.25 to 0.55 %.

### REFERENCES

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