



Assay of Total Flavonoids in Dried Extract of *Aleurites moluccana*

Denise C.S. MATOS¹, Christiane MEYRE-SILVA¹, Ruth M L. SILVA^{1,2},
Valdir CECHINEL-FILHO^{1,2} & Tania M. B BRESOLIN^{1,2*}

¹ Núcleo de Investigações Químico-Farmacêuticas (NIQFAR)
da Universidade do Vale do Itajaí (UNIVALI);

² Programa de Mestrado em Ciências Farmacêuticas- UNIVALI. Rua Uruguai, 458,
CEP 88 302-202. Itajaí, Santa Catarina, Brazil.

SUMMARY. The flavonoid 2''-*O*-rhamnosylswertisin in *Aleurites moluccana* is related to the therapeutic effect of the plant, making it an adequate marker. In this work a method of total flavonoid assay was developed and validated, expressed in its marker. A double reflux of dried extract obtained from *A. moluccana* leaves (0.4 g) with 50 % (v/v) ethanol was carried out. After filtration, the solution was complexed with 2 % AlCl₃ in 50 % (v/v) ethanol, and the absorbance read at 397 nm after 90 min. The number of refluxes (1-2), volume of complexing agent (0.5-3 mL), stability of complexing agent and complexation time (15-120 min) were evaluated. The specific absorption coefficient ($E_{1cm}^{1\%}$) of the marker compound was 77.18. The method showed linearity ($r^2 > 0.99$) at the tested range, good precision (RSD % \approx 5 %, intra-day and inter-days) and accuracy of 99.3 %. The dried extract of leaves of *A. moluccana* showed 0.15 % total flavonoids, expressed in 2''-*O*-rhamnosylswertisin.

KEY WORDS: *Aleurites moluccana*, Analytical Validation, Flavonoid complexation, Total flavonoids.

* Author to whom correspondence should be addressed. *E-mail:* tbresolin@univali.br