



Validation of a High Performance Liquid Chromatographic Method for Quantitative Determination of Boldine in Fluid Extract of Boldo

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SUMMARY. A simple and specific method was validated for quantification of boldine in fluid extract of boldo (*Peumus boldus* Mol.) using high-performance liquid chromatography. A reversed-phase C₁₈, Phenomenex® (150 x 4.6 mm, 4 µm) column was employed. The mobile phase consisted of 0.1 % trifluoroacetic acid and acetonitrile (78:22, v/v) at a flow rate of 0.8 mL/min. The column was maintained at 30 °C and the boldine peak detection was performed at a wavelength of 281 nm. The parameters used in the validation process were: linearity, specificity, precision, accuracy, limit of detection, limit of quantification and robustness. The validated method was selective and linear ($r \geq 0.9991$) for boldine concentration considering 5.0, 10.0, 15.0, 20.0 and 25.0 µg/mL. The recovery ranged from 90.93 % to 96.24 % and the limit of quantification was 2.41 µg/mL. The precision determined was reported as RSD (1.73 %). The method can be successfully applied to measure boldine concentrations in Boldo extract and be included in routine analysis of quality control.

KEY WORDS: Boldine, High-performance liquid chromatography, *Peumus boldus* Mol., Quality control, Validation.

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