Latin American Journal of Pharmacy
(formerly *Acta Farmacéutica Bonaerense)*
Lat. Am. J. Pharm. **30** (1): 132-8 (2011)

Original Article
Received: Febreuary 1, 2010
Revised version: May 11, 2010
Accepted: May 12, 2010

Method Development and Validation for the Determination of Cabergoline in Tablets by Capillary Zone Electrophoresis

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SUMMARY. **A capillary zone electrophoresis (CZE) method has been developed for the analysis of cabergoline in its pharmaceutical preparations. Optimized analysis conditions for cabergoline analysis were performed using 110 mM pH 5.0 phosphate buffer containing 30 % acetonitrile as an electrolyte solution. Separation was performed through a fused silica capillary (50 μm i.d., total length 64.5 cm, 50.0 cm effective length) at 30 ºC with an applied voltage of 30 kV and hydrodynamic injection for 4 s. Cabergoline and internal standard verapamil were detected at a wavelength of 220 nm. The calibration was liner from 5.0 to 90.0 μg mL^{-1} and the limit of detection and quantification were 1.25 and 3.77 μg mL^{-1}. Optimized CE method was validated on the basis of related ICH guideline and found as an accurate, sensitive, precise and reproducible method for cabergoline determination. Developed method is also successfully applied for the analysis of pharmaceutical preparations containing cabergoline.**

KEY WORDS: Cabergoline, Capillary zone electrophoresis, Pharmaceutical preparations, Tablet, Validation.

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ISSN 0326-2383