Latin American Journal of Pharmacy
(formerly *Acta Farmacéutica Bonaerense)*
Lat. Am. J. Pharm. **31** (1): 120-4 (2012)

Regular Article
Received: October 1, 2010
Revised version: February 1, 2012
Accepted: February 3, 2012

Validation of an UV Spectrophotometric Method for Determining Diffractaic Acid from *Usnea sp.* in Inclusion Complexes with Hydroxypropyl-β-Cyclodextrin

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***SUMMARY*. Diffractaic acid (DA) presents several biological activities. The goal of this study was to develop and validate a UV spectrophotometric method for determining diffractaic acid in inclusion complexes with hydroxypropyl-β-cyclodextrin. Validation parameters were determined according to international guidelines for standardization. The linearity range of analytical curve was from 1 to 5 μg/mL and the regression equation: C_{DA} = (Area - 0.0053)/0.1541 (r^2 = 0.99998; n = 3). The intermediate precision indicated that the difference between the means was statistically insignificant ($p < 0.05$). Accuracy revealed a mean recovery percentage of diffractaic acid in inclusion complexes of 100.1 %. The method was robust and the formulation excipients did not interfere on diffractaic acid quantification. Limits of detection and quantification of diffractaic acid were 0.03 and 0.08 μg/mL, respectively. The proposed method proved to be accurate, precise and reproducible, thus being able to quantify diffractaic acid in raw material and inclusion complexes.**

KEY WORDS: Diffractaic acid, Hydroxypropyl-β-cyclodextrin, Inclusion complex, Validation method.

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ISSN 0326-2383