Latin American Journal of Pharmacy
(formerly *Acta Farmacéutica Bonaerense)*
Lat. Am. J. Pharm. **29** (8): 1277-82 (2010)

Original article
Received: January 27, 2010
Revised version: March 18, 2010
Accepted: March 24, 2010

Electroanalytical Method for the Analysis of Methyldopa In Pharmaceutical Tablets Using a Crude Extract of Laccase from *Pycnoporus sanguineus* as Oxidizing Agent

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SUMMARY. Several colorimetric and chromatographic methods have been used for the identification and quantification of methyldopa (MA) in pharmaceutical formulations and clinical samples. However, these methods are time- and reagent-consuming, which stimulated our efforts to develop a simple, fast, and low-cost alternative method. We carried out an electroanalytical method for the determination of MA in pharmaceutical formulations using the crude enzymatic extract of laccase from *Pycnoporus sanguineus* as oxidizing agent. This method is based on the biochemical oxidation of MA by laccase (LAC), both in solution, followed by electrochemical reduction on glassy carbon electrode surface. This method was employed for the determination of MA in pure and pharmaceutical formulations and compared with the results obtained using the official method. A wide linear curve from 2.5 x 10^{-5} to 1 x 10-4 mol L^{-1} was found with a detection limit calculated from 4.5 x 10^{-6} mol L^{-1}.

KEY WORDS: Electroanalytical assay, Enzymatic assay, Laccase crude extract, Methyldopa, Voltammetry.

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