APPLICATION OF HIGH PERFORMANCE LIQUID CHROMATOGRAPHIC METHOD FOR THE DETERMINATION OF LEVODOPA, CARBIDOPA, AND ENTACAPONE IN TABLET DOSAGE FORMS

Yousry M. Issa, Mohamed E. M. Hassoun and Ashraf G. Zayed

Abstract

This study aims to develop a rapid, simple, precise, and accurate high-performance liquid chromatographic (HPLC) method to determine levodopa (LD), carbidopa (CD), and entacapone (EN) mixture in their pharmaceutical dosage forms.

The developed method was validated for specificity, linearity, precision, and accuracy. The specificity of the method was determined in the presence of placebo interference and different degradation products. The response was linear for the drug concentration ranges of 1.25–500.00, 0.31–125.00, and 2.500–850.00 $\mu g\,mL^{-1}$ for LD, CD, and EN, respectively. Accuracy values for the method ranged from 99.20–100.80, 99.30–100.70, and 98.85–101.16% for LD, CD, and EN, respectively. The dissolution of the pharmaceutical products carlidopa 12.5 mg and carlidopa 37.5 mg tablets was tested and reported.

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