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A NOVEL OF BEZAFIBRATE ANALYSIS METHODS IN URINE (IN VITRO) USING SOLID PHASE EXTRACTION-HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY-UV DETECTOR

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Abstract

Objective*: Bezafibrate is the second generation of fibrate groups used as the drug of choice in the treatment of hyperlipidemia. The purpose of this study is to obtained a validated method for analyzing bezafibrate in urine using solid phase extraction (SPE)-High performance liquid chromatography (HPLC). ABSTRACT*

Methods*: Solid phase extraction (SPE) using hydrophilic-lipophilic balance (HLB) cartridge was performed for bezafibrate extraction from urine, afterward, a validation of analysis method using high-performance liquid chromatography (HPLC)-(UV) detection was conducted to parameters, including: selectivity (Rs), linearity (r), accuracy, precision, limit of detection (LOD) and limit of quantification (LOQ).*

Results*: Recovery extraction using SPE resulted %recovery 85-110%. The analysis was performed by high-performance liquid chromatography using reversed phase, C18 octadecylsilane (ODS) columns 250 x 26 mm, particle size 10 µl, with the composition of 0.01 M acetate buffer with pH 3.55: with percent composition (45:55) and 0.8 ml/minute on 230 nm UV detection. Validation includes selectivity, linearity, accuracy, precision LOD, and LOQ have fulfilled requirement value.*

Conclusion*: The result of recovery extraction using SPE and validation of method exhibited the values that fulfilled the requirements and can be used for analysis bezafibrate in the urine.*

Author Keywords

Bezafibrate, HPLC, SPE, Urine

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