

الاستهلال

بسم الله الرحمن الرحيم

قال تعالى: (قل ان صلاتي ونسكي ومحياي ومماتي
لله رب العالمين * لا شريك له وبذلك امرت وانا اول
المسلمين)

سوره الانعام الآية: (162- 163)

DEDICATION

This thesis is dedicated to my father who has given me the opportunity for the best institution and help throughout my life, to my mother who taught me that difficult tasks can be accomplished if it is done step by step at a time. May Allah give them happiness in their lives.

I also dedicate this thesis to my family members and with special thanks to Mohammed Ali who have always helped me, encouraged me and beloved me.

Amna Nooreldeen

ACKNOWLEDGEMENT

This research project would not have been done without Allah and the support of my family.

I would like to thank my supervisor Dr. Kamal Mohamed Saeed for his patience, guidance and support during this work.

Special thanks to Unimed Pharmaceuticals factory staff for their help and attention.

ABSTRACT:

A simple HPLC method was developed and validated for estimation of mefenamic acid, using UV-Visible detector at 275 nm on a reverse phase column (phenomenx, C18 4.6 mm × 2.5 mm), with mobile phase consisting of: acidified water (pH 3.2 adjusted With ortho phosphoric acid) and methanol (10:90 v/v) pumped at a flow rate of 1 ml/min at retention time ~ 3.5 min with symmetrical peaks. Mefnamic acid was detected by ultraviolet absorbance at 275 nm 20 µl with no interference of commonly used excipient.

The validation parameters (selectivity, linearity, precision, accuracy and quantification limit) were measured. The Linearity shows straight line in the range: 5-25 µ g /l, with coefficients (R²) = 0.999 and the Relative standard deviation % were found to be less than 2% for three replicates samples. The recoveries obtained ranged from 102 - 104 %. The proposed method is rapid, accurate and selective.

المستخلص :

تم تطوير طريقة بسيطة لتقدير حمض الميفنামيك في الأشكال الصيدلانية باستخدام كروماتوغرافيا السائل عالي الأداء في الطول الموجي 275 نانوميتر وباستخدام م عمود فصل C18. الطور المتحرك هو عبارة عن ماء محمض (رقمه الهيدروجيني 3.2 تم ضبط الرقم الهيدروجيني باستخدام حمض الفسفوريك) وكحول الميثانول بنسبه (90:10) علي التوالي, ضخ بمعدل 1 مل /دقيقة وزمن احتفاظ 3.5 دقيقة مع قمم متناظرة المتغيرات المستخدمة للتأكد من صحة الطريقة المستخدمة لتقدير الميفنামيك هي (الخطية, الانتقائية والدقة) في الخطية معامل الانحدار = $R^2 = 0.9991$ و الانحراف المعياري النسبي اقل من 2%. النتائج الإحصائية اثبتت أن هذه الطريقة سريعة ودقيقة و انتقائية.

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