



Research Article

DEVELOPMENT AND VALIDATION OF UV-SPECTROPHOTOMETRIC METHOD FOR SIMVASTATIN IN BULK AND TABLET DOSAGE FORM BY USING AREA UNDER CURVE (AUC) METHOD.

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Received: 13 April 2013,

Revised and Accepted: 30 April 2013

ABSTRACT

Simvastatin is used as hypolipidaemic agent for the treatment of congestive heart disease (CHD) and atherosclerosis. A simple, accurate, precise and economic spectrophotometric method was developed and validated for the estimation of simvastatin using area under curve method. Methanol was used as solvent and all parameters were validated as per ICH guideline Q2(R1). The wavelength of maximum absorption for Simvastatin was found to be at 238 nm. The method obeyed Beer-Lambert's law and indicated by the calibration curve in the range 2-12µg/ml. The regression equation was $y = 0.0969x - 0.0051$. The Correlation coefficient was found to be 0.9995. LOD and LOQ were calculated as 0.0703µg/ml and 0.2130µg/ml respectively. The developed method can be used for quantitative estimation of simvastatin in bulk and pharmaceutical dosage forms.

Key-words: Simvastatin, Area under curve, UV-spectrophotometry.