



Research Article



Formulation and Evaluation of Niacin extended release Tablets

Jagadeesh Kumar Ega¹ and Kavitha Siddoju^{2*}

Corresponding Author:

jkjagadeeshkumare@gmail.com

DOI:

<http://dx.doi.org/>

10.17812/IJRA.3.9(70)2016

Manuscript:

Received: 14th Jan, 2016

Accepted: 7th Mar, 2016

Published: 25th Mar, 2016

Publisher:

Global Science Publishing
Group, USA

<http://www.globalsciencepg.org/>

ABSTRACT

The objective of the study is to evaluate the release pattern of drug from the

fabricated extended release tablets and compare with market sample of the extended release formulation of Niacin tablets over a period of 24 hours. In this paper we are going to discuss graphically such as Stability, Mathematically modeling and drug release kinetic Models such as Korsmeyer's Kinetic Model, Higuchi Kinetic Model, First order, Zero order Drug Release, FTIR Spectra, Assay, Comparative Dissolution. It is a potent lipid modifying drug and reduces total mortality, major coronary events, progression of atherosclerosis, coronary artery disease (CAD) mortality, need for revascularization, and incidence of stroke in high risk and CAD patients. Niacin reduces hepatic synthesis of triglycerides (TG) as well as the secretion of very low-density lipoprotein (VLDL) by inhibiting the mobilization of free fatty acids from peripheral tissues. Niacin is the precursor to nicotinamide adenine dinucleotide (NAD) and nicotinamide adenine dinucleotide phosphate (NADP), which are vital cofactors for dozens of enzymes.

Keywords: Niacin, Formulation, Comparative Dissolution, Kinetics, FTIR Spectra.

¹² Department Chemistry,

¹ Christu Jyothi Institute of Technology & Science, Jangaon, Telangana – India,

² Chaitanya Postgraduate College (Autonomous) Warangal, Telangana - India.

IJRA - Year of 2016 Transactions:

Month: January - March

Volume – 3, Issue – 9, Page No's:412-421

Subject Stream: Chemistry

Paper Communication: Author Direct

Paper Reference Id: IJRA-2016: 3(9)412-421