FORMULATION AND EVALUATION OF BUPRENORPHINE FOR SUBLINGUAL DRUG DELIVERY

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Abstract

This study evaluated sublingual buprenorphine films made with HPMC E15 as a film-forming polymer and polyethylene glycol as a plasticizer. The films were made using the solvent casting method and tested for a variety of physicochemical properties, including physical appearance, weight uniformity, thickness uniformity, folding endurance, drug content, in vitro disintegration time, and in vitro drug release. The results showed that the formulated films performed satisfactorily for all evaluated parameters. The optimized formulation (F5) demonstrated rapid in vitro drug release, a transparent appearance, and a shorter disintegration time, potentially resulting in a faster onset of action. Short-term stability studies showed no significant changes in evaluation parameters such as drug content, disintegration time, or in vitro drug release.

Keywords: Buprenorphine, Sublingual Drug Delivery, HPMC E15, Solvent Casting Technique, Rapid Onset of Action

Biography

P.H emanth has his own experience in valuation and passion for ML and data. The research team built this model after many years of experience in research, evaluation, work in both hospitals and scientific laboratories. This approach meets all the requirements for precise, specific, sensitive diagnostics.

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