

Formulation and Evaluation of Orodispersible Film using Folic Acid

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Abstract: *The present study aimed to formulate and evaluate folic acid-loaded orodispersible films (ODFs) to enhance patient compliance and improve the drug's solubility. Folic acid was characterized through organoleptic evaluation, melting point determination, UV spectroscopy, and FTIR analysis, confirming its purity and stability. Various formulations (F1–F6) were developed using different concentrations of HPMC E15 and PVA polymers. The films were assessed for physical parameters, including thickness, weight variation, surface pH, moisture content, and drug content. In vitro drug release studies were performed using Franz diffusion cells, showing that formulation F3 exhibited the highest cumulative release of 98.02% over 180 minutes. Spectroscopic analysis confirmed the compatibility between drug and excipients. The study successfully demonstrated that orodispersible films are an effective and patient-friendly method for delivering folic acid with enhanced release profiles.*

Keywords: Folic acid, Orodispersible film, In vitro drug release, HPMC E1, Franz diffusion cell.

