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(57) Abstract :

The current invention discloses a pharmaceutical composition comprising a solid dispersion system encapsulated formulation aimed at enhancing the biopharmaceutical properties of BCS Class II drug candidates. This formulation utilizes rock sugar and monosodium glutamate (MSG) as carrier systems to improve solubility and bioavailability. Additionally, the invention details the formulation of the capsule dosage form incorporating the developed solid dispersion system along with pharmaceutically acceptable excipients, while evaluating key properties such as flow characteristics and compressibility index. In vitro release studies of capsules filled with the solid dispersion system of albendazole are also presented, demonstrating the efficacy of the formulation. This invention specifically addresses the need for improved biopharmaceutical properties in BCS Class II drug candidates and outlines the preparation methods for the solid powder composition, which is filled in capsules using approved ingredients. Ultimately, the invention emphasizes the potential of using sugar as a carrier in the solid dispersion composition to enhance therapeutic outcomes.

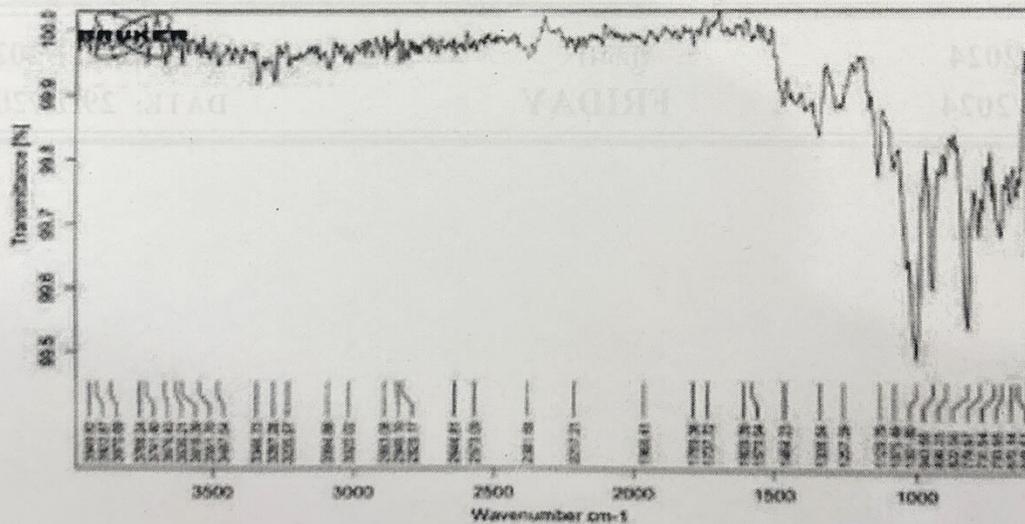


Figure 1: FTIR Spectrum of Albendazole+ Rock sugar + MSG

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