METHODS FOR IMPROVING ALPHA-MANGOSTIN SOLUBILITY: A REVIEW

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Abstract

Solubility is an important parameter to achieve for the bioavailability of a drug to reach the therapeutic windows. Garcinia mangostana Linn is a plant with great potency for the development of natural medicine. Alpha-mangostin is one of the secondary metabolites of G. mangostana and has been reported to have several pharmacological activities. The Biopharmaceutics Classification System (BCS) is a system that classifies drugs based on their solubility and permeability. Due to its low solubility but high permeation, alpha-mangostin is categorized into class II of the Biopharmaceutics Classification System. Therefore, the determination of dosage forms and modification of solubility enhancers is limited due to its physical properties, as mentioned above. This disadvantage requires new methods to improve its solubility to administer alpha-mangostin, especially for oral administration. Here, we discuss the development of the methods to increase alpha-mangostin solubility to be applied to formulate a dosage form to reach a useful plasma level for medication.

Author Keywords

Alpha-mangostin, Solubility, Drug delivery system

Reference