ABSTRACT

THE INFLUENCE OF COCRYSTALLIZATION ARTESUNATE-NICOTINAMID TO SOLUBILITY AND DISSOLUTION RATE OF ARTESUNATE

(slurry method in ratio 1:1)

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Artesunate is an artemisin derivate, a malarial drug that has a good bioactivity and low toxicity. It has been classified as Biopharmaceutical Class II (BSC II) which has poor solubility in aqueous media and high permeability through membrane. Cocrystal has been studied by many researcher as a method to improve solubility and dissolution rate. The aim of this study is to compare the artesunate-nikotinamide cocrystal solubility and dissolution rate with physical mixture and artesunate itself. Solubility and dissolution test were carried out to determine artesunate-nikotinamide cocrystal properties. Solubility test and dissolution test result show that there is no significant increase in artesunate-nicotinamide cocrystal.

Keyword: Artesunate, Nicotinamide, Cocrystal, Solubility,

Dissolution Rate