

Comparison of Freeze and Spray Drying to Obtain Primaquine-Loaded Solid Lipid Nanoparticles

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Abstract

This article describes how the spray drying and freeze drying of various nanosized Solid Lipid Nanoparticle (SLN) and the physicochemical attributes of the acquired particles were examined. Primaquine loaded Solid Lipid Nanoparticles dried by the two strategies is examined. Particles were characterised by determination of size, drug loading, encapsulation efficiency and surface morphology. In vitro and kinetic drug discharge models were also considered. Preparation parameters have no impact on the molecule morphology and properties, and the main parameter deciding the molecule attributes in the drug substance of the nanoparticle, either in the spraying or in the freezing technique of drying. The drug release profile of spray dried SLN is superior to that of the freeze dried SLN.

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