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Development and Validation of a RP-HPLC Method to Quantify Naringenin in Lecithin/Chitosan Nano- and Microparticle Suspensions

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***SUMMARY*. A reverse phase high-performance liquid chromatography (RP-HPLC) method was developed and validated to quantify naringenin in nano- and microparticle suspensions. The HPLC method was performed on a Phenomenex Luna C18 column (250 mm ↔ 4.6 mm i.d., 5 μm) with a mobile phase consisted of methanol/water (60:40 v/v, pH 2.5) at a flow rate of 1 mL/min and ultraviolet detection at 288 nm. The calibration graph was linear from 0.1 to 15.0 μg/mL with a correlation coefficient of 0.999 and the limits of detection (LD) and quantification (LQ) were 0.046 and 0.1 μg/mL, respectively. Validation parameters, such as the specificity, linearity, precision, accuracy, and robustness were evaluated, and results were within the acceptable range. The results proved that the proposed method was successfully applied to evaluate the entrapment efficiency and naringenin content in lecithin/chitosan nano- and microparticle suspensions.**

KEY WORDS: Lecithin/chitosan nano- and microparticles, Naringenin, RP-HPLC method, validation.

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