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Design and Formulation Quercetin Formula In The Phytosomes System as Novel Drug Delivery

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Abstract: Quercetin has many pharmacological activities but it has low bioavailability and absorption. The purpose of this research is to get the best formula composition for quercetin phytosome intended for oral administration. Three different formulae have been prepared in this study using thin layer hydration method, namely F1, F2, F3 with concentration of quercetin in a row is 1%, 1.5% and 2%. Phosphatidylcholine and cholesterol were used in the composition. Each formula had evaluated by characterization including vesicle morphology, entrapment efficiency, particle size, polydispersity index, and zeta potential. The results show that F1 is the best formula with spherical vesicle morphology, entrapment efficiency $96.57 \pm 5.61\%$, average particle size 266.6 ± 1.37 nm, polydispersity index 0.01 ± 0.388 and zeta potential -29.43 ± 0.75 mV. That formula can be used in the next research.

Keywords : bioavailability, quercetin, formula, phytosome.

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