

ABSTRACT

IN VITRO TESTING OF EFFERVESCENT GRANULE SUSPENSION FORMULATION OF CHITOSAN MANUFACTURING CRAB (*Scylla serrata*) SHELLS WITH A COMPARISON OF CITRIC ACID AND TARTRIC ACID USING THE WET GRANULATION METHOD

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*One way to utilize crab shell waste so that it has value and effectiveness is by processing chitin into chitosan. Mud crab (*Scylla serrata*) shells are processed using demineralization, deproteination and deacetylation processes. Then, in this research, preparations were made, namely effervescent granule suspensions, to make it easier for patients who had difficulty swallowing tablets, capsules, etc. Then tested using UV-VIS spectrophotometry with a wavelength of 412nm, a correlation coefficient value of 0.991 was obtained. percentage reduction in cholesterol levels F1 $6.04 \pm 3.36\%$, F2 $20.54 \pm 20.54\%$. Simvastatin as a positive control had a percentage reduction in cholesterol levels of $17.96 \pm 17.96\%$. Chitosan has anti-cholesterol activity. F2 has a higher percentage compared to other formulas to reduce cholesterol levels comparable to the positive control. Continuing with statistical tests, the results showed that the acid concentration did not affect the percentage reduction in cholesterol levels.*

*Keyword : Mud crab (*Scylla serrata*), demineralization, deproteination, deacetylation, effervescent, spectrophotometry UV-VIS, Cholesterol.*