

## **ABSTARCT**

### ***IN VITRO EVALUATION OF CHOLESTEROL REDUCING ABILITY CHITOSAN FROM MANGROVE CRAB (*Scylla serrata*) SHELL EFFERVESCENT GRANULE SUSPENSION WITH DIFFERENT DOSAGE OF 45 mg AND 55 mg KITOSAN (Prepared by dry granulation method)***

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*Crustacean shells contain chitin resources. This chitin can be processed into chitosan through deproteination, demineralization, and deacetylation processes. Chitosan is known to have the ability to bind fat and cholesterol in the body so that it can help reduce blood cholesterol levels. This study aims to determine the effect of different doses of chitosan 45mg and 55mg in the preparation of effervescent granule suspension of mangrove crab shell chitosan (*Scylla serrata*) in reducing cholesterol levels tested in vitro. In vitro tests in this study were carried out at a wavelength of 412nm using the Lieberman-Burchard method to determine the absorbance of the effervescent granule suspension sample FI, effervescent granule suspension FII, and positive control simvastatin 10mg. The results of the percentage reduction in cholesterol levels in the FI effervescent granule suspension sample amounted to  $1.74\% \pm 0,88$ , then in the FII effervescent granule suspension sample amounted to  $1,24\% \pm 1,20$ . From the results that have been obtained, it can be seen that the FI effervescent granule suspension has a greater ability to reduce cholesterol levels compared to the FII effervescent granule suspension.*

*Keywords: Mangrove crab shell, Chitosan, Cholesterol reduction, Effervescent granule, In vitro test.*