

ABSTRACT

***IN VITRO* ASSAY FORMULATION OF CRAB SHELL CHITOSAN (*Scylla serrata*) EFFERVESCENT GRANULE SUSPENSION PREPARATION AS CHOLESTEROL LOWERING SUPPLEMENT WITH SUSPENDING AGENT AVICEL DAN KOMBINASI AVICEL – CMC-Na**

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*Chitosan can lower cholesterol levels in the blood. This research utilizing mangrove crab shell chitosan (*Scylla serrata*) as an active ingredient in suspension of effervescent granules using variations of formula 1 suspension agent avicel (1%) and formula 2 avicel (0,5%) – CMC-Na (0,5) combination. This research aims to determine whether the chitosan of mangrove crab shell (*Scylla serrata*) can formulated into effervescent granule suspension.*

Chitosan can lower total cholesterol levels and lower LDL (Low-Density Lipoprotein). In the test chitosan has specifically met various standards, in the deacetylation test it showed a value of $81\% \pm 7.73$, the organoleptic test has met the standards by showing the texture of chitosan in the form of powder, brownish white in color as well as odorless and tasteless. in the ninhydrin test the 3rd formula shows a purple color. in the test the ash content shows a value of $5.93\% \pm 0.36$, as well as the moisture content test $9.3\% \pm 0.85$.

Tests performed in vitro on effervescent granule suspension formulations showed an average % decrease in cholesterol levels, F1 valued at $29.06\% \pm 6.27$ and F2 valued at $29.46\% \pm 2.89$. Testing crab shell chitosan with the suspending agent avicel and the combination of avicel-CMC-Na can lower cholesterol levels in the body. In the Man Whitney on effervescent granule samples is $0.083 > 0.05$, it is said that there is no significant change in the sample (meaningless).

Keywords : *Chitosan, Cholesterol Levels, Crab Shells (*Scylla serrata*).*