INTISARI

Indonesia merupakan negara kepulauan terbesar di dunia, yang mempunyai berbagai macam potensi sumber daya alam hayati dan non hayati yang melimpah, beserta potensi kearifan lokal yang berkembang dimasyarakat. Salah satu bentuk kearifan lokal yang masih berkembang yaitu pemanfaatan minyak hati ikan Hiu botol, di masyarakat pesisir Kabupaten Cilacap yang sampai saat ini telah banyak dikonsumsi oleh masyaakat luas. Namun, dalam kenyataanya masih banyak kendala yang muncul meliputi, belum diketahui mutu produk minyak hati ikan Hiu botol tersebut dan belum ada kepastian dosis minyak hati ikan Hiu botol yang boleh dikonsumsi untuk mendapatkan manfaat bagi kesehatan.

Berdasarkan fakta tersebut, maka perlu di lakukan penelitian untuk memberikan solusi atas kendala dalam pemanfaatan kearifan lokal minyak hati ikan Hiu botol. Untuk tahapan penelitian yang dilakukan yaitu meliputi analisis *gas chromatography mass spectrometry* (GCMS), uji mutu karakteristik minyak hati ikan Hiu botol menggunakan metode Volumetri dan uji antihiperkolesterol pada tikus putih jantan galur Wistar, data hasil uji antihiperkolesterol dianalisis secara statistik menggunakan independent T-Test dengan signifikansi $P<0,05$.

Pada analisis GCMS minyak hati ikan Hiu botol kelas I, diketahui mengandung senyawa aktif *Squalena* sebesar 97,95% dan pada uji mutu karakteristik minyak ikan diketahui bahwa angka asam 0,42mg KOH/gram, angka peroksida 1,99 mili-equivalen/kg, asam lemak bebas 0,22 % b/v dan bilangan penyabunan 118,08 mg KOH/gram, keempat parameter tersebut masih memenuhi SNI, FAO dan WHO. Tahap penelitian berikutnya yaitu uji antihiperkolesterol, diketahui bahwa kelompok variasi dosis MHB kelas I sebesar 4,5 mg/KgBB, 9 mg/KgBB dan dosis 18 mg/KgBB serta kelompok kontrol positif simvastatin dosis 0,9 mg/KgBB mampu menurunkan kadar LDL (l*ow density lipoprotein)* dan kolesterol total secara signifikan terhadap kontrol negatif, yang ditunjukkan dengan nilai $P<0,05$. Namun, diantara kelompok variasi dosis MHB kelas I tidak terdapat perbedaan yang signifikan terhadap kontrol positif simvastatin dalam menurunkan LDL dan kolesterol total, yang ditunjukkan dengan nilai $P>0,05$.

Kata kunci : Minyak hati ikan Hiu botol, *Squalena*, LDL dan Kolesterol.

ABSTRACT

Indonesia is the largest archipelagic state in the world, which has various potentials of natural resources and non-natural resources, as well as potentials of local wisdoms which are developing in the society. One of the local wisdoms is the utilization of dogfish shark liver oil, in coastal society in Cilacap District that until present it has been consumed by people in the society. However, in reality there are many restrictions, including unknown quality and uncertainty dosage of the dogfish shark liver oil products that may be consumed for health.

Based on the facts above, a research needs to be conducted to give solution for the restrictions in the utilization of local wisdom of the dogfish shark liver oil. The stages of this research were: *gas chromatography mass spectrometry* (GCMS) analysis, quality test of the characteristics of dogfish shark liver oil by using Volumetry method and antihypercholesterolemia on strain wistar male white mice. The data obtained through antihypercholestetol test were analyzed statistically by using independent T-Test with the significance of $P < 0.05$.

In GCMS analysis of dogfish shark liver oil class I, it was found that it contained *Squalena* active compound by 97.95% and in the characteristics found in quality test of the fish oil, it was known that there were acid of 0.42mg KOH/gram, peroxide of 1.99 mili-equivalent/kg, free fatty acid of 0.22 % b/v and soap ability of 118.08 mg KOH/gram. The four parameters still fulfilled the requirements demanded by SNI, FAO and WHO. The next step of this research was conducting anti-hypercholesterolemia test. It was found that the dosage variation group of MHB Class I is by 4.5 mg/KgBB, 9 mg/KgBB and 18 mg/KgBB, while simvastatin positive control group which had the dosage of 0.9 mg/KgBB could decrease LDL (l*ow density lipoprotein)* and total cholesterol significantly toward the negative control, which were shown by number of $P<0.05$. However, there was not any significant difference toward simvastatin positive control of the dosage variation group of MHB Class I in decreasing LDL and total cholesterol. It was shown by P value > 0.05.

Key Words: Dogfish shark liver oil, *Squalena*, LDL and Cholesterol.