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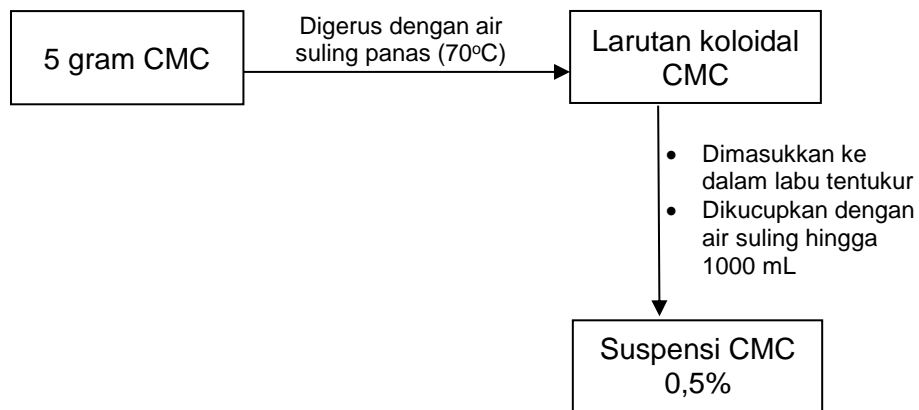
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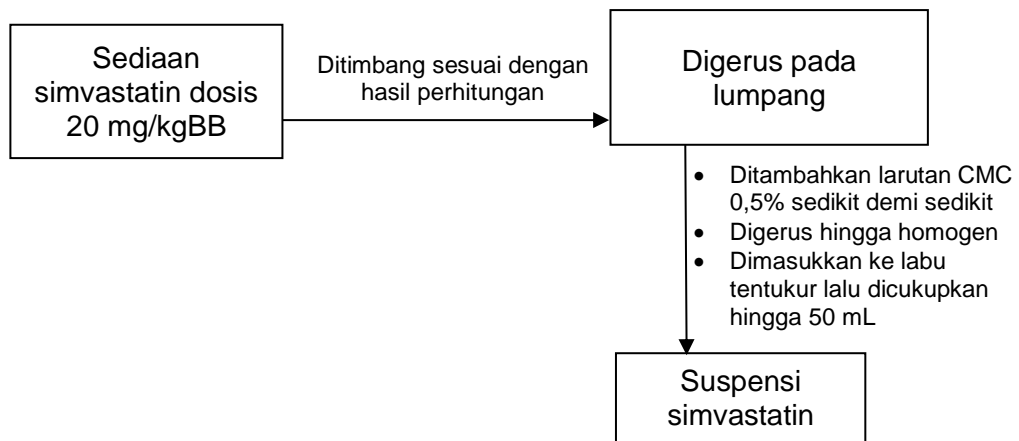
LAMPIRAN

Lampiran 1. Skema Kerja

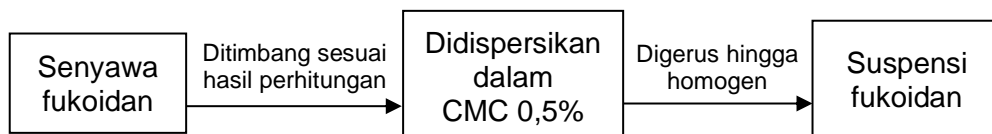
1.1 Pembuatan Suspensi CMC 0,5%



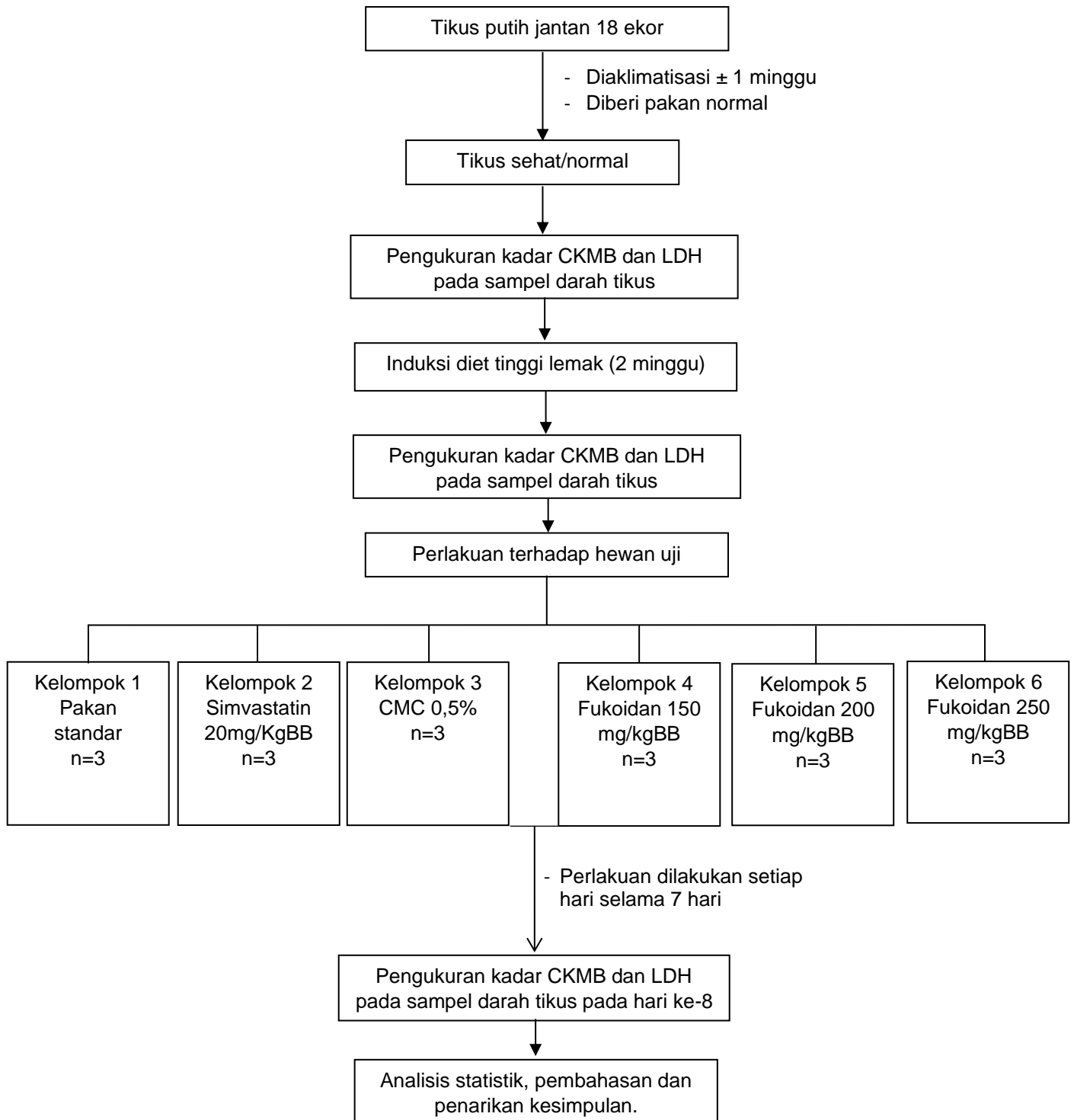
1.2 Pembuatan Suspensi Simvastatin



1.3 Pembuatan Suspensi Fukoidan



1.4 Skema Kerja Penelitian



Lampiran 2. Perhitungan

2.1 Dosis Simvastatin

Dosis simvastatin pada etiket : 20 mg

Berat rata-rata tablet : 206,3 mg

- Dosis manusia = 20 mg/60 kgBB
= 0,3 mg/kgBB
= 0,06 mg/200 grBB
- Konversi ke dosis hewan = 0,06 mg/200 grBB x 0,018
= 0,0012 mg/200 grBB/2 mL
- Dosis timbang = $\frac{\text{Dosis hewan}}{\text{Berat etiket}} \times \text{berat rata-rata tablet}$
= $\frac{0,0012 \text{ mg}}{20 \text{ mg}} \times 206,3 \text{ mg}$
= 0,0124 mg/200 grBB/2 mL
- Stok 45 mL = 0,0124 mg/2 mL
= 0,279 mg/45 mL

2.2 Dosis Fukoidan

- Dosis 150 mg/kgBB
= 150 mg/kgBB
= 150 mg/1000 grBB
= 30 mg/200 grBB

$$\begin{aligned} \text{Dosis hewan} &= \text{Dosis manusia} \times \text{faktor konversi} \\ &= 30 \text{ mg/200 grBB} \times 0,018 \\ &= 0,54 \text{ mg/200 grBB} \end{aligned}$$

Perhitungan pembuatan larutan stok :

$$\begin{aligned} \text{Stok 45 mL} &= 0,54 \text{ mg/200 grBB/2 mL} \\ &= 12,15 \text{ mg/200 grBB/45 mL} \end{aligned}$$

- Dosis 200 mg/kgBB
= 200 mg/kgBB
= 200 mg/1000 grBB
= 40 mg/200 grBB

$$\begin{aligned} \text{Dosis hewan} &= \text{Dosis manusia} \times \text{faktor konversi} \\ &= 40 \text{ mg}/200 \text{ grBB} \times 0,018 \\ &= 0,72 \text{ mg}/200 \text{ grBB} \end{aligned}$$

$$\begin{aligned} \text{Stok } 45 \text{ mL} &= 0,72 \text{ mg}/200 \text{ grBB}/2 \text{ mL} \\ &= 16,2 \text{ mg}/200 \text{ grBB}/45 \text{ mL} \end{aligned}$$

- Dosis 250 mg/kgBB
 - = 250 mg/kgBB
 - = 250 mg/1000 gr BB
 - = 50 mg/200 gr BB

$$\begin{aligned} \text{Dosis hewan} &= \text{Dosis manusia} \times \text{faktor konversi} \\ &= 50 \text{ mg}/200 \text{ grBB} \times 0,018 \\ &= 0,9 \text{ mg}/200 \text{ grBB} \end{aligned}$$

Perhitungan pembuatan larutan stok :

$$\begin{aligned} \text{Stok } 45 \text{ mL} &= 0,9 \text{ mg}/200 \text{ grBB}/2 \text{ mL} \\ &= 20,25 \text{ mg}/200 \text{ grBB}/45 \text{ mL} \end{aligned}$$

2.3 CMC 0,5%

$$\begin{aligned} \text{CMC } 0,5\% &= \frac{0,5}{100} \times 300 \text{ mL} \\ &= 1,5 \text{ gr}/300 \text{ mL} \end{aligned}$$

Jumlah CMC 0,5% yang ditimbang 1,5 gr

2.4 Etanol 20% dalam Saline

$$1 \text{ mL} = 1 \text{ gram}$$

$$\begin{aligned} \text{Dosis etanol} &= 4,5 \text{ gr}/\text{kgBB} \\ &= 0,9 \text{ gr}/200 \text{ grBB}/2 \text{ mL} \end{aligned}$$

$$\begin{aligned} \text{Stok } 500 \text{ mL} &= 0,9 \text{ gr}/200 \text{ grBB}/2 \text{ MI} \\ &= 225 \text{ gr}/500 \text{ mL} \\ &= 225 \text{ mL}/500 \text{ mL} \end{aligned}$$

Pengenceran etanol 99% --> etanol 20%

$$M1. V1 = M2. V2$$

$$99 M. V1 = 20 M. 225 \text{ mL}$$

$$V1 = 20 M. 225 \text{ mL} / 99 M$$

= 45 mL --> Jumlah etanol 99% yang dipipet, diencerkan dengan *aquadest* hingga 225 mL.

2.5 Diet Tinggi Lemak

- **Mentega** --> persentase 30% b/v

Komposisi mentega (Blueband®) :

- Lemak = 15 gr (11 gr lemak total + 4 gr lemak jenuh)
- Kolesterol = 0 gr

Jumlah mentega yang ditimbang :

$$= 15 \text{ gr} \times 30\% \text{ b/v}$$

$$= 4,5 \text{ gr}$$

- **Susu** --> persentase 70% b/v

Komposisi mentega (Indomilk UHT®) :

- Lemak total 8 gr
 - = 8 gr x 70% b/v
 - = 5,6 gram
- Kolesterol 25 mg
 - = 0,025 gr x 70% b/v
 - = 0,017 gram

Jumlah susu yang ditimbang :

$$= 5,6 \text{ gr} + 0,017 \text{ gr}$$

$$= 5,617 \text{ gram}$$

Lampiran 3. Hasil statistik pengukuran kadar CK-MB dan LDH

Lampiran 3.1 *Creatine Kinase – Myocardial Band (CK-MB)*

		Tests of Normality					
		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Kelompok	Statistic	df	Sig.	Statistic	df	Sig.
Daw	Kontrol sehat	.200	3	.	.995	3	.862
	Kontrol negatif	.212	3	.	.990	3	.812
	Kontrol positif	.275	3	.	.944	3	.542
	Dosis 150mg/kg BB	.187	3	.	.998	3	.915
	Dosis 200 mg/kgBB	.372	3	.	.783	3	.073
	Dosis 250 mg/kgBB	.257	3	.	.961	3	.619
Dte	Kontrol sehat	.209	3	.	.991	3	.823
	Kontrol negatif	.343	3	.	.843	3	.223
	Kontrol positif	.272	3	.	.947	3	.555
	Dosis 150mg/kg BB	.214	3	.	.989	3	.803
	Dosis 200 mg/kgBB	.276	3	.	.942	3	.537
	Dosis 250 mg/kgBB	.355	3	.	.818	3	.159
Dak	Kontrol sehat	.194	3	.	.997	3	.888
	Kontrol negatif	.289	3	.	.927	3	.479
	Kontrol positif	.259	3	.	.959	3	.612
	Dosis 150mg/kg BB	.312	3	.	.896	3	.372
	Dosis 200 mg/kgBB	.376	3	.	.772	3	.049
	Dosis 250 mg/kgBB	.221	3	.	.986	3	.775

a. Lilliefors Significance Correction

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Daw	Between Groups	1432.500	5	286.500	.523	.755
	Within Groups	6574.000	12	547.833		
	Total	8006.500	17			
Dte	Between Groups	437128.944	5	87425.789	10.170	.001
	Within Groups	103154.667	12	8596.222		
	Total	540283.611	17			
Dak	Between Groups	24731.167	5	4946.233	3.993	.023
	Within Groups	14865.333	12	1238.778		
	Total	39596.500	17			

Post Hoc Tests

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Kelompok	(J) Kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Daw	Kontrol sehat	Kontrol negatif	7.00000	19.11079	.999	-57.1916	71.1916
		Kontrol positif	4.66667	19.11079	1.000	-59.5250	68.8583
		Dosis 150mg/kg BB	18.66667	19.11079	.917	-45.5250	82.8583
		Dosis 200 mg/kgBB	-11.00000	19.11079	.991	-75.1916	53.1916
		Dosis 250 mg/kgBB	7.66667	19.11079	.998	-56.5250	71.8583
	Kontrol negatif	Kontrol sehat	-7.00000	19.11079	.999	-71.1916	57.1916
		Kontrol positif	-2.33333	19.11079	1.000	-66.5250	61.8583
		Dosis 150mg/kg BB	11.66667	19.11079	.988	-52.5250	75.8583
		Dosis 200 mg/kgBB	-18.00000	19.11079	.928	-82.1916	46.1916
		Dosis 250 mg/kgBB	.66667	19.11079	1.000	-63.5250	64.8583
	Kontrol positif	Kontrol sehat	-4.66667	19.11079	1.000	-68.8583	59.5250
		Kontrol negatif	2.33333	19.11079	1.000	-61.8583	66.5250
		Dosis 150mg/kg BB	14.00000	19.11079	.974	-50.1916	78.1916
		Dosis 200 mg/kgBB	-15.66667	19.11079	.958	-79.8583	48.5250

		Dosis 250 mg/kgBB	3.00000	19.11079	1.000	-61.1916	67.1916
	Dosis 150mg/kg BB	Kontrol sehat	-18.66667	19.11079	.917	-82.8583	45.5250
		Kontrol negatif	-11.66667	19.11079	.988	-75.8583	52.5250
		Kontrol positif	-14.00000	19.11079	.974	-78.1916	50.1916
		Dosis 200 mg/kgBB	-29.66667	19.11079	.641	-93.8583	34.5250
		Dosis 250 mg/kgBB	-11.00000	19.11079	.991	-75.1916	53.1916
	Dosis 200 mg/kgBB	Kontrol sehat	11.00000	19.11079	.991	-53.1916	75.1916
		Kontrol negatif	18.00000	19.11079	.928	-46.1916	82.1916
		Kontrol positif	15.66667	19.11079	.958	-48.5250	79.8583
		Dosis 150mg/kg BB	29.66667	19.11079	.641	-34.5250	93.8583
		Dosis 250 mg/kgBB	18.66667	19.11079	.917	-45.5250	82.8583
	Dosis 250 mg/kgBB	Kontrol sehat	-7.66667	19.11079	.998	-71.8583	56.5250
		Kontrol negatif	-.66667	19.11079	1.000	-64.8583	63.5250
		Kontrol positif	-3.00000	19.11079	1.000	-67.1916	61.1916
		Dosis 150mg/kg BB	11.00000	19.11079	.991	-53.1916	75.1916
		Dosis 200 mg/kgBB	-18.66667	19.11079	.917	-82.8583	45.5250
Dte	Kontrol sehat	Kontrol negatif	-309.00000*	75.70215	.015	-563.2775	-54.7225
		Kontrol positif	-341.00000*	75.70215	.007	-595.2775	-86.7225

	Dosis 150mg/kg BB	-347.33333*	75.70215	.006	-601.6108	-93.0558
	Dosis 200 mg/kgBB	-304.66667*	75.70215	.016	-558.9442	-50.3892
	Dosis 250 mg/kgBB	-527.66667*	75.70215	.000	-781.9442	-273.3892
Kontrol negatif	Kontrol sehat	309.00000*	75.70215	.015	54.7225	563.2775
	Kontrol positif	-32.00000	75.70215	.998	-286.2775	222.2775
	Dosis 150mg/kg BB	-38.33333	75.70215	.995	-292.6108	215.9442
	Dosis 200 mg/kgBB	4.33333	75.70215	1.000	-249.9442	258.6108
	Dosis 250 mg/kgBB	-218.66667	75.70215	.108	-472.9442	35.6108
Kontrol positif	Kontrol sehat	341.00000*	75.70215	.007	86.7225	595.2775
	Kontrol negatif	32.00000	75.70215	.998	-222.2775	286.2775
	Dosis 150mg/kg BB	-6.33333	75.70215	1.000	-260.6108	247.9442
	Dosis 200 mg/kgBB	36.33333	75.70215	.996	-217.9442	290.6108
	Dosis 250 mg/kgBB	-186.66667	75.70215	.209	-440.9442	67.6108
Dosis 150mg/kg BB	Kontrol sehat	347.33333*	75.70215	.006	93.0558	601.6108
	Kontrol negatif	38.33333	75.70215	.995	-215.9442	292.6108
	Kontrol positif	6.33333	75.70215	1.000	-247.9442	260.6108
	Dosis 200 mg/kgBB	42.66667	75.70215	.992	-211.6108	296.9442
	Dosis 250 mg/kgBB	-180.33333	75.70215	.236	-434.6108	73.9442

	Dosis 200 mg/kgBB	Kontrol sehat	304.66667*	75.70215	.016	50.3892	558.9442
		Kontrol negatif	-4.33333	75.70215	1.000	-258.6108	249.9442
		Kontrol positif	-36.33333	75.70215	.996	-290.6108	217.9442
		Dosis 150mg/kg BB	-42.66667	75.70215	.992	-296.9442	211.6108
		Dosis 250 mg/kgBB	-223.00000	75.70215	.099	-477.2775	31.2775
	Dosis 250 mg/kgBB	Kontrol sehat	527.66667*	75.70215	.000	273.3892	781.9442
		Kontrol negatif	218.66667	75.70215	.108	-35.6108	472.9442
		Kontrol positif	186.66667	75.70215	.209	-67.6108	440.9442
		Dosis 150mg/kg BB	180.33333	75.70215	.236	-73.9442	434.6108
		Dosis 200 mg/kgBB	223.00000	75.70215	.099	-31.2775	477.2775
Dak	Kontrol sehat	Kontrol negatif	-83.00000	28.73764	.109	-179.5275	13.5275
		Kontrol positif	-11.33333	28.73764	.998	-107.8608	85.1941
		Dosis 150mg/kg BB	-42.00000	28.73764	.693	-138.5275	54.5275
		Dosis 200 mg/kgBB	8.33333	28.73764	1.000	-88.1941	104.8608
		Dosis 250 mg/kgBB	31.00000	28.73764	.881	-65.5275	127.5275
	Kontrol negatif	Kontrol sehat	83.00000	28.73764	.109	-13.5275	179.5275
		Kontrol positif	71.66667	28.73764	.200	-24.8608	168.1941

	Dosis 150mg/kg BB	41.00000	28.73764	.712	-55.5275	137.5275
	Dosis 200 mg/kgBB	91.33333	28.73764	.068	-5.1941	187.8608
	Dosis 250 mg/kgBB	114.00000*	28.73764	.018	17.4725	210.5275
Kontrol positif	Kontrol sehat	11.33333	28.73764	.998	-85.1941	107.8608
	Kontrol negatif	-71.66667	28.73764	.200	-168.1941	24.8608
	Dosis 150mg/kg BB	-30.66667	28.73764	.885	-127.1941	65.8608
	Dosis 200 mg/kgBB	19.66667	28.73764	.980	-76.8608	116.1941
	Dosis 250 mg/kgBB	42.33333	28.73764	.686	-54.1941	138.8608
Dosis 150mg/kg BB	Kontrol sehat	42.00000	28.73764	.693	-54.5275	138.5275
	Kontrol negatif	-41.00000	28.73764	.712	-137.5275	55.5275
	Kontrol positif	30.66667	28.73764	.885	-65.8608	127.1941
	Dosis 200 mg/kgBB	50.33333	28.73764	.527	-46.1941	146.8608
	Dosis 250 mg/kgBB	73.00000	28.73764	.187	-23.5275	169.5275
Dosis 200 mg/kgBB	Kontrol sehat	-8.33333	28.73764	1.000	-104.8608	88.1941
	Kontrol negatif	-91.33333	28.73764	.068	-187.8608	5.1941
	Kontrol positif	-19.66667	28.73764	.980	-116.1941	76.8608
	Dosis 150mg/kg BB	-50.33333	28.73764	.527	-146.8608	46.1941
	Dosis 250 mg/kgBB	22.66667	28.73764	.964	-73.8608	119.1941

Dosis 250 mg/kgBB	Kontrol sehat	-31.00000	28.73764	.881	-127.5275	65.5275
	Kontrol negatif	-114.00000*	28.73764	.018	-210.5275	-17.4725
	Kontrol positif	-42.33333	28.73764	.686	-138.8608	54.1941
Dosis 150mg/kg BB		-73.00000	28.73764	.187	-169.5275	23.5275
Dosis 200 mg/kgBB		-22.66667	28.73764	.964	-119.1941	73.8608

*. The mean difference is significant at the 0.05 level.

Paired Sample Test

1) Kontrol sehat

Paired Samples Test

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pair 1 Daw - Dte	-24.33333	21.45538	12.38727	-77.63145	28.96479	-1.964	2	.188
Pair 2 Dte - Dak	9.00000	40.00000	23.09401	-90.36551	108.36551	.390	2	.734

2) Kontrol negatif

Paired Samples Test

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pair 1 Daw - Dte	-340.33333	26.85765	15.50627	-407.05143	-273.61523	-21.948	2	.002
Pair 2 Dte - Dak	235.00000	55.50676	32.04684	97.11357	372.88643	7.333	2	.018

3) Kontrol positif

Paired Samples Test

		Paired Differences								
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)	
					Lower	Upper				
Pair 1	Daw - Dte	-370.00000	147.92904	85.40687	-737.47610	-2.52390	-4.332	2	.049	
Pair 2	Dte - Dak	338.66667	125.65959	72.54960	26.51093	650.82240	4.668	2	.043	

4) Dosis 150 mg/kgBB

Paired Samples Test

		Paired Differences								
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)	
					Lower	Upper				
Pair 1	Daw - Dte	390.33333	91.51138	52.83412	-617.66021	-163.00645	7.388	2	.018	
Pair 2	Dte - Dak	314.33333	102.78781	59.34457	58.99426	569.67240	5.297	2	.034	

5) Dosis 200 mg/kgBB

Paired Samples Test

		Paired Differences								
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)	
					Lower	Upper				
Pair 1	Daw - Dte	318.00000	6.55744	3.78594	-334.28958	-301.71042	83.995	2	.000	
Pair 2	Dte - Dak	322.00000	52.94337	30.56687	190.48139	453.51861	10.534	2	.009	

6) Dosis 250 mg/kgBB

Paired Samples Test

Pair	Daw	-	Paired Differences				t	df	Sig. (2-tailed)
			Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			
						Lower			
1	- Dte	559.66667	154.04653	88.93881	-942.33946	-176.99387	6.293	2	.024
2	Dte - Dak	567.66667	154.06600	88.95005	184.94550	950.38784	6.382	2	.024

Lampiran 3.2 Lactat Dehidrogenase (LDH)

Tests of Normality

Kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	
Daw	Kontrol sehat	.183	3	.	.999	3	.931
	Kontrol negatif	.175	3	.	1.000	3	1.000
	Kontrol positif	.194	3	.	.996	3	.886
	Dosis 150 mg/kgBB	.289	3	.	.928	3	.480
	Dosis 200 mg/kgBB	.343	3	.	.842	3	.220
	Dosis 250 mg/kgBB	.219	3	.	.987	3	.780
Dte	Kontrol sehat	.324	3	.	.878	3	.317
	Kontrol negatif	.237	3	.	.976	3	.705
	Kontrol positif	.177	3	.	1.000	3	.969
	Dosis 150 mg/kgBB	.334	3	.	.860	3	.266
	Dosis 200 mg/kgBB	.289	3	.	.927	3	.477
	Dosis 250 mg/kgBB	.198	3	.	.995	3	.870
Dak	Kontrol sehat	.314	3	.	.893	3	.363
	Kontrol negatif	.323	3	.	.878	3	.318
	Kontrol positif	.219	3	.	.987	3	.780
	Dosis 150 mg/kgBB	.178	3	.	.999	3	.952
	Dosis 200 mg/kgBB	.253	3	.	.964	3	.637
	Dosis 250 mg/kgBB	.196	3	.	.996	3	.878

a. Lilliefors Significance Correction

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Daw	Between Groups	1105.167	5	221.033	1.684	.213
	Within Groups	1575.333	12	131.278		
	Total	2680.500	17			
Dte	Between Groups	895329.111	5	179065.822	53.172	.000
	Within Groups	40412.000	12	3367.667		
	Total	935741.111	17			
Dak	Between Groups	546859.778	5	109371.956	127.746	.000
	Within Groups	10274.000	12	856.167		
	Total	557133.778	17			

Post Hoc Tests

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Kelompok	(J) Kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Daw	Kontrol sehat	Kontrol negatif	7.33333	9.35513	.965	-24.0898	38.7565
		Kontrol positif	3.33333	9.35513	.999	-28.0898	34.7565
		Dosis 150 mg/kgBB	-.66667	9.35513	1.000	-32.0898	30.7565
		Dosis 200 mg/kgBB	8.33333	9.35513	.942	-23.0898	39.7565
		Dosis 250 mg/kgBB	-15.33333	9.35513	.591	-46.7565	16.0898
	Kontrol negatif	Kontrol sehat	-7.33333	9.35513	.965	-38.7565	24.0898
		Kontrol positif	-4.00000	9.35513	.998	-35.4232	27.4232
		Dosis 150 mg/kgBB	-8.00000	9.35513	.950	-39.4232	23.4232

	Dosis 200 mg/kgBB	1.00000	9.35513	1.000	-30.4232	32.4232
	Dosis 250 mg/kgBB	-22.66667	9.35513	.222	-54.0898	8.7565
Kontrol positif	Kontrol sehat	-3.33333	9.35513	.999	-34.7565	28.0898
	Kontrol negatif	4.00000	9.35513	.998	-27.4232	35.4232
	Dosis 150 mg/kgBB	-4.00000	9.35513	.998	-35.4232	27.4232
	Dosis 200 mg/kgBB	5.00000	9.35513	.993	-26.4232	36.4232
	Dosis 250 mg/kgBB	-18.66667	9.35513	.398	-50.0898	12.7565
Dosis 150 mg/kgBB	Kontrol sehat	.66667	9.35513	1.000	-30.7565	32.0898
	Kontrol negatif	8.00000	9.35513	.950	-23.4232	39.4232
	Kontrol positif	4.00000	9.35513	.998	-27.4232	35.4232
	Dosis 200 mg/kgBB	9.00000	9.35513	.921	-22.4232	40.4232
	Dosis 250 mg/kgBB	-14.66667	9.35513	.632	-46.0898	16.7565
Dosis 200 mg/kgBB	Kontrol sehat	-8.33333	9.35513	.942	-39.7565	23.0898
	Kontrol negatif	-1.00000	9.35513	1.000	-32.4232	30.4232
	Kontrol positif	-5.00000	9.35513	.993	-36.4232	26.4232
	Dosis 150 mg/kgBB	-9.00000	9.35513	.921	-40.4232	22.4232
	Dosis 250 mg/kgBB	-23.66667	9.35513	.190	-55.0898	7.7565
Dosis 250 mg/kgBB	Kontrol sehat	15.33333	9.35513	.591	-16.0898	46.7565
	Kontrol negatif	22.66667	9.35513	.222	-8.7565	54.0898

		Kontrol positif	18.66667	9.35513	.398	-12.7565	50.0898
		Dosis 150 mg/kgBB	14.66667	9.35513	.632	-16.7565	46.0898
		Dosis 200 mg/kgBB	23.66667	9.35513	.190	-7.7565	55.0898
Dte	Kontrol sehat	Kontrol negatif	-555.00000*	47.38260	.000	-714.1544	-395.8456
		Kontrol positif	-569.66667*	47.38260	.000	-728.8211	-410.5123
		Dosis 150 mg/kgBB	-630.66667*	47.38260	.000	-789.8211	-471.5123
		Dosis 200 mg/kgBB	-592.66667*	47.38260	.000	-751.8211	-433.5123
		Dosis 250 mg/kgBB	-622.66667*	47.38260	.000	-781.8211	-463.5123
	Kontrol negatif	Kontrol sehat	555.00000*	47.38260	.000	395.8456	714.1544
		Kontrol positif	-14.66667	47.38260	1.000	-173.8211	144.4877
		Dosis 150 mg/kgBB	-75.66667	47.38260	.615	-234.8211	83.4877
		Dosis 200 mg/kgBB	-37.66667	47.38260	.963	-196.8211	121.4877
		Dosis 250 mg/kgBB	-67.66667	47.38260	.711	-226.8211	91.4877
	Kontrol positif	Kontrol sehat	569.66667*	47.38260	.000	410.5123	728.8211
		Kontrol negatif	14.66667	47.38260	1.000	-144.4877	173.8211
		Dosis 150 mg/kgBB	-61.00000	47.38260	.786	-220.1544	98.1544
		Dosis 200 mg/kgBB	-23.00000	47.38260	.996	-182.1544	136.1544
		Dosis 250 mg/kgBB	-53.00000	47.38260	.865	-212.1544	106.1544
	Dosis 150 mg/kgBB	Kontrol sehat	630.66667*	47.38260	.000	471.5123	789.8211

		Kontrol negatif	75.66667	47.38260	.615	-83.4877	234.8211
		Kontrol positif	61.00000	47.38260	.786	-98.1544	220.1544
		Dosis 200 mg/kgBB	38.00000	47.38260	.962	-121.1544	197.1544
		Dosis 250 mg/kgBB	8.00000	47.38260	1.000	-151.1544	167.1544
	Dosis 200 mg/kgBB	Kontrol sehat	592.66667*	47.38260	.000	433.5123	751.8211
		Kontrol negatif	37.66667	47.38260	.963	-121.4877	196.8211
		Kontrol positif	23.00000	47.38260	.996	-136.1544	182.1544
		Dosis 150 mg/kgBB	-38.00000	47.38260	.962	-197.1544	121.1544
		Dosis 250 mg/kgBB	-30.00000	47.38260	.986	-189.1544	129.1544
	Dosis 250 mg/kgBB	Kontrol sehat	622.66667*	47.38260	.000	463.5123	781.8211
		Kontrol negatif	67.66667	47.38260	.711	-91.4877	226.8211
		Kontrol positif	53.00000	47.38260	.865	-106.1544	212.1544
		Dosis 150 mg/kgBB	-8.00000	47.38260	1.000	-167.1544	151.1544
		Dosis 200 mg/kgBB	30.00000	47.38260	.986	-129.1544	189.1544
Dak	Kontrol sehat	Kontrol negatif	-486.00000*	23.89096	.000	-566.2478	-405.7522
		Kontrol positif	-18.00000	23.89096	.970	-98.2478	62.2478
		Dosis 150 mg/kgBB	-33.66667	23.89096	.722	-113.9145	46.5812
		Dosis 200 mg/kgBB	-23.33333	23.89096	.917	-103.5812	56.9145
		Dosis 250 mg/kgBB	-20.33333	23.89096	.951	-100.5812	59.9145

Kontrol negatif	Kontrol sehat	486.00000*	23.89096	.000	405.7522	566.2478
	Kontrol positif	468.00000*	23.89096	.000	387.7522	548.2478
	Dosis 150 mg/kgBB	452.33333*	23.89096	.000	372.0855	532.5812
	Dosis 200 mg/kgBB	462.66667*	23.89096	.000	382.4188	542.9145
	Dosis 250 mg/kgBB	465.66667*	23.89096	.000	385.4188	545.9145
Kontrol positif	Kontrol sehat	18.00000	23.89096	.970	-62.2478	98.2478
	Kontrol negatif	-468.00000*	23.89096	.000	-548.2478	-387.7522
	Dosis 150 mg/kgBB	-15.66667	23.89096	.984	-95.9145	64.5812
	Dosis 200 mg/kgBB	-5.33333	23.89096	1.000	-85.5812	74.9145
	Dosis 250 mg/kgBB	-2.33333	23.89096	1.000	-82.5812	77.9145
Dosis 150 mg/kgBB	Kontrol sehat	33.66667	23.89096	.722	-46.5812	113.9145
	Kontrol negatif	-452.33333*	23.89096	.000	-532.5812	-372.0855
	Kontrol positif	15.66667	23.89096	.984	-64.5812	95.9145
	Dosis 200 mg/kgBB	10.33333	23.89096	.998	-69.9145	90.5812
	Dosis 250 mg/kgBB	13.33333	23.89096	.992	-66.9145	93.5812
Dosis 200 mg/kgBB	Kontrol sehat	23.33333	23.89096	.917	-56.9145	103.5812
	Kontrol negatif	-462.66667*	23.89096	.000	-542.9145	-382.4188
	Kontrol positif	5.33333	23.89096	1.000	-74.9145	85.5812
	Dosis 150 mg/kgBB	-10.33333	23.89096	.998	-90.5812	69.9145

	Dosis 250 mg/kgBB	3.00000	23.89096	1.000	-77.2478	83.2478
Dosis 250 mg/kgBB	Kontrol sehat	20.33333	23.89096	.951	-59.9145	100.5812
	Kontrol negatif	-465.66667*	23.89096	.000	-545.9145	-385.4188
	Kontrol positif	2.33333	23.89096	1.000	-77.9145	82.5812
	Dosis 150 mg/kgBB	-13.33333	23.89096	.992	-93.5812	66.9145
	Dosis 200 mg/kgBB	-3.00000	23.89096	1.000	-83.2478	77.2478

*. The mean difference is significant at the 0.05 level.

Paired Sample Test

1) Kontrol sehat

Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Daw - Dte	9.66667	11.01514	6.35959	-17.69646	37.02979	1.520	2	.268
Pair 2	Dte - Dak	2.33333	19.65536	11.34803	-51.15996	46.49330	-.206	2	.856

2) Kontrol negatif

Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Daw - Dte	552.66667	35.94904	20.75519	-641.96903	-463.36431	26.628	2	.001
Pair 2	Dte - Dak	66.66667	38.68247	22.33333	-29.42591	162.75924	2.985	2	.096

3) Kontrol positif

Paired Samples Test

		Paired Differences								
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)	
					Lower	Upper				
Pair 1	Daw - Dte	-563.33333	21.50194	12.41415	-616.74711	-509.91956	-45.378	2	.000	
Pair 2	Dte - Dak	549.33333	43.50096	25.11529	441.27096	657.39570	21.872	2	.002	

4) Dosis 150 mg/kgBB

Paired Samples Test

		Paired Differences								
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)	
					Lower	Upper				
Pair 1	Daw - Dte	-620.33333	51.73329	29.86823	-748.84595	-491.82072	-20.769	2	.002	
Pair 2	Dte - Dak	594.66667	43.36281	25.03553	486.94747	702.38586	23.753	2	.002	

5) Dosis 200 mg/kgBB

Paired Samples Test

		Paired Differences								
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)	
					Lower	Upper				
Pair 1	Daw - Dte	-591.33333	119.09800	68.76126	-887.18916	-295.47750	-8.600	2	.013	
Pair 2	Dte - Dak	567.00000	116.01293	66.98010	278.80790	855.19210	8.465	2	.014	

6) Dosis 250 mg/kgBB

Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Daw - Dte	-597.66667	45.01481	25.98931	-709.48966	-485.84367	-22.997	2	.002
Pair 2	Dte - Dak	600.00000	44.50843	25.69695	489.43494	710.56506	23.349	2	.002

Lampiran 4. Dokumentasi penelitian



Gambar 3. Proses aklimatisasi



Gambar 4. Persiapan pengambilan darah



Gambar 5. Proses pengambilan darah



Gambar 6. Pembuatan pakan tinggi lemak



Gambar 7. Pakan tinggi lemak



Gambar 8. Induksi pakan tinggi lemak



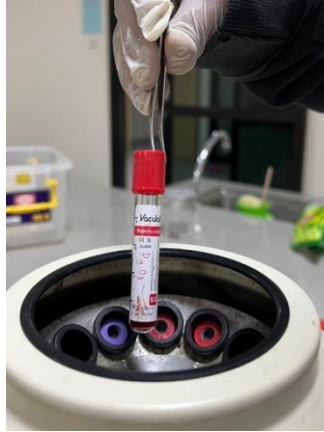
Gambar 9. Pembuatan suspensi terapi



Gambar 10. Suspensi CMC, simvastatin & fukoidan



Gambar 11. Induksi suspensi terapi




**Gambar 12. Sampel darah
hewan coba**



**Gambar 13. Pemisahan
plasma darah**

Lampiran 5. Surat persetujuan etik


KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN
KOMITE ETIK PENELITIAN UNIVERSITAS HASANUDDIN
RSPTN UNIVERSITAS HASANUDDIN
RSUP Dr. WAHIDIN SUDIROHUSODO MAKASSAR
 Sekretariat : Lantai 2 Gedung Laboratorium Terpadu
 JL.PERINTIS KEMERDEKAAN KAMPUS TAMALANREA KM.10 MAKASSAR 90245.
 Contact Person: dr. Agussalim Bukhari.,MMed,PhD, SpGK TELP. 081241850858, 0411 5780103, Fax : 0411-581431

REKOMENDASI PERSETUJUAN ETIK
 Nomor : 487/UN4.6.4.5.31/ PP36/ 2023

Tanggal: 14 Juli 2023

Dengan ini Menyatakan bahwa Protokol dan Dokumen yang Berhubungan Dengan Protokol berikut ini telah mendapatkan Persetujuan Etik :

No Protokol	UH23060363	No Sponsor	
Peneliti Utama	Renita Vitha Viona	Sponsor	
Judul Peneliti	Studi Aktivitas Senyawa Fukoidan dari Alga Cokelat (<i>Sargassum polycystum</i>) Terhadap Kadar CK-MB dan LDH Tikus Wistar (<i>Rattus norvegicus</i>) Yang Diinduksi Diet Tinggi Lemak		
No Versi Protokol	2	Tanggal Versi	12 Juli 2023
No Versi PSP		Tanggal Versi	
Tempat Penelitian	Fakultas Farmasi Universitas Hasanuddin Makassar		
Jenis Review	<input type="checkbox"/> Exempted <input checked="" type="checkbox"/> Expedited <input type="checkbox"/> Fullboard Tanggal	Masa Berlaku 14 Juli 2023 sampai 14 Juli 2024	Frekuensi review lanjutan
Ketua KEP Universitas Hasanuddin	Nama Prof.Dr.dr. Suryani As'ad, M.Sc.,Sp.GK (K)	Tanda tangan 	
Sekretaris KEP Universitas Hasanuddin	Nama dr. Agussalim Bukhari, M.Med.,Ph.D.,Sp.GK (K)	Tanda tangan 	

Kewajiban Peneliti Utama:

- Menyerahkan Amandemen Protokol untuk persetujuan sebelum di implementasikan
- Menyerahkan Laporan SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan Laporan SUSAR dalam 72 Jam setelah Peneliti Utama menerima laporan
- Menyerahkan Laporan Kemajuan (progress report) setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah
- Menyerahkan laporan akhir setelah Penelitian berakhir
- Melaporkan penyimpangan dari prokol yang disetujui (protocol deviation / violation)
- Mematuhi semua peraturan yang ditentukan