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LAMPIRAN

1. Perhitungan ALT bakteri asam laktat

No.	Hari Fermentasi	Pengenceran	Replikasi			Rata-Rata
			I	II	III	
1	Fermentasi hari ke-1	10-4	325	174	171	223,3
		10-5	179	153	175	169
		10-6	174	155	178	169
2	Fermentasi hari ke-3	10-4	417	308	340	355
		10-5	296	259	202	252,3
		10-6	168	146	151	155
3	Fermentasi hari ke-7	10-4	145	188	4	112,3
		10-5	162	163	113	146
		10-6	71	78	81	76,6
4	Fermentasi hari ke-14	10-4	102	111	219	144
		10-5	8	150	179	112,3
		10-6	43	47	30	40

Rumus : $ALT = V \times N \times \frac{1}{\text{Faktor Pengenceran (Fp)}}$

Fermentasi Dangke 1 hari

$$ALT = V \times N \times \frac{1}{\text{Faktor Pengenceran (Fp)}}$$

$$ALT = 1 \times \frac{\left(233,3 \times \frac{1}{10^{-4}}\right) + \left(169 \times \frac{1}{10^{-5}}\right) + \left(169 \times \frac{1}{10^{-6}}\right)}{3}$$

$$ALT = 1 \times \frac{(233,3 \times 10^4) + (169 \times 10^5) + (169 \times 10^6)}{3}$$

$$ALT = 62,041 \times 10^6 \rightarrow 0,62 \times 10^8 \text{ CfU/ mL}$$

Fermentasi Dangke 3 hari

$$ALT = V \times N \times \frac{1}{\text{Faktor Pengenceran (Fp)}}$$

$$ALT = 1 \times \frac{\left(253,3 \times \frac{1}{10^{-5}}\right) + \left(155 \times \frac{1}{10^{-6}}\right)}{2}$$

$$ALT = 1 \times \frac{(253,3 \times 10^5) + (155 \times 10^6)}{2}$$

$$ALT = 90,115 \times 10^6 \rightarrow 0,912 \times 10^8 \text{ CfU/ mL}$$

Fermentasi Dangke 7 hari

$$ALT = V \times N \times \frac{1}{\text{Faktor Pengenceran (Fp)}}$$

$$ALT = 1 \times \frac{\left(112,3 \times \frac{1}{10^{-4}}\right) + \left(146 \times \frac{1}{10^{-5}}\right) + \left(76,6 \times \frac{1}{10^{-6}}\right)}{3}$$

$$ALT = 1 \times \frac{(112,3 \times 10^4) + (146 \times 10^5) + (76,6 \times 10^6)}{3}$$

$$ALT = 26,39 \times 10^6 \rightarrow 0,263 \times 10^8 \text{ Cfu/ mL}$$

Fermentasi Dangke 14 hari

$$ALT = V \times N \times \frac{1}{\text{Faktor Pengenceran (Fp)}}$$

$$ALT = 1 \times \frac{\left(144 \times \frac{1}{10^{-4}}\right) + \left(112,3 \times \frac{1}{10^{-5}}\right) + \left(40 \times \frac{1}{10^{-6}}\right)}{3}$$

$$ALT = 1 \times \frac{(144 \times 10^4) + (112,3 \times 10^5) + (40 \times 10^6)}{3}$$

$$ALT = 14,18 \times 10^6 \rightarrow 0,14 \times 10^8 \text{ Cfu/ mL}$$

2. Tabel konversi dosis berdasarkan hewan dan manusia (Nair & Jacob, 2018)

Species	Average body weight (kg)	Body surface area (m ²)	To convert animal dose in mg/kg to HED in mg/m ² , multiply by K _m	To convert animal dose in mg/kg to HED in mg/kg, multiply animal dose by	To convert human dose in mg/kg to AED in mg/kg, multiply human dose by
Human	60	1.62	37	-	-
Mouse	0.02	0.007	3	0.081	12.3
Hamster	0.08	0.016	5	0.135	7.4
Rat	0.15	0.025	6	0.162	6.2
Ferret	0.30	0.043	7	0.189	5.3
Guinea pig	0.40	0.05	8	0.216	4.6
Rabbit	1.8	0.15	12	0.324	3.1
Dog	10	0.50	20	0.541	1.8
Cat	7	0.37	19	0.514	1.9
Monkeys (rhesus)	3	0.25	12	0.324	3.1
Marmoset	0.35	0.06	6	0.162	6.2
Squirrel monkey	0.60	0.09	7	0.189	5.3
Baboon	12	0.60	20	0.541	1.8
Micro pig	20	0.74	27	0.730	1.4
Mini pig	40	1.14	35	0.946	1.1

Note. Data obtained from FDA draft guidelines (US FDA, 2005). AED = animal equivalent dose; HED = human equivalent dose.

3. Perhitungan Dosis Kelompok Kontrol Positif

Dosis acarbose 50 mg \rightarrow 50 mg/60 kg : 60 = 0,83 mg/kg

Konversi = 0,83 mg/kg x 6,2 = 5,146 mg/kg \rightarrow $\frac{5,146 \text{ mg}}{1000 \text{ gram}} \times 200 \text{ gram} = 1,03 \text{ mg}$

Dosis simvastatin 10 mg \rightarrow 10 mg/60 kg : 60 = 0,16 mg/kg

Konversi = 0,16 mg/kg x 6,2 = 1,04 mg/kg \rightarrow $\frac{1,04 \text{ mg}}{1000 \text{ gram}} \times 200 \text{ gram} = 0,20 \text{ mg}$

4. Analisis Statistic Tukey

a. Analisis Statistic Kadar Gukosa Darah Tikus

Hasil analisis SPSS kadar glukosa darah antar kelompok

ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	24134.964	6	4022.494	12.382	.000
Within Groups	6821.943	21	324.854		
Total	30956.907	27			

Uji Post Hoc Test Kadar Glukosa Darah Tikus

Multiple Comparisons

Tukey HSD

(I) Kelompok Perlakuan	(J) Kelompok Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Kontrol Normal	Kontrol Negatif	-52.8750 [*]	12.74469	.007	-94.3052	-11.4448
	Dangke 0.5 gram	11.30000	12.74469	.971	-30.1302	52.7302
	Dangke 1 gram	-.75000	12.74469	1.000	-42.1802	40.6802
	Dangke 1,5 gram	34.62500	12.74469	.143	-6.8052	76.0552
	Kontrol Simvastatin	30.37500	12.74469	.254	-11.0552	71.8052
	Kontrol Acarbose	39.17500	12.74469	.072	-2.2552	80.6052
Kontrol Negatif	Kontrol Normal	52.8750 [*]	12.74469	.007	11.4448	94.3052
	Dangke 0.5 gram	64.1750 [*]	12.74469	.001	22.7448	105.6052

	Dangke 1 gram	52.12500 ⁺	12.74469	.008	10.6948	93.5552
	Dangke 1,5 gram	87.50000 ⁺	12.74469	.000	46.0698	128.9302
	Kontrol Simvastatin	83.25000 ⁺	12.74469	.000	41.8198	124.6802
	Kontrol Acarbose	92.05000 ⁺	12.74469	.000	50.6198	133.4802
Dangke 0.5 gram	Kontrol Normal	-11.30000	12.74469	.971	-52.7302	30.1302
	Kontrol Negatif	-64.17500 ⁺	12.74469	.001	-105.6052	-22.7448
	Dangke 1 gram	-12.05000	12.74469	.960	-53.4802	29.3802
	Dangke 1,5 gram	23.32500	12.74469	.544	-18.1052	64.7552
	Kontrol Simvastatin	19.07500	12.74469	.744	-22.3552	60.5052
	Kontrol Acarbose	27.87500	12.74469	.343	-13.5552	69.3052
Dangke 1 gram	Kontrol Normal	.75000	12.74469	1.000	-40.6802	42.1802
	Kontrol Negatif	-52.12500 ⁺	12.74469	.008	-93.5552	-10.6948
	Dangke 0.5 gram	12.05000	12.74469	.960	-29.3802	53.4802
	Dangke 1,5 gram	35.37500	12.74469	.128	-6.0552	76.8052
	Kontrol Simvastatin	31.12500	12.74469	.230	-10.3052	72.5552
	Kontrol Acarbose	39.92500	12.74469	.064	-1.5052	81.3552
Dangke 1,5 gram	Kontrol Normal	-34.62500	12.74469	.143	-76.0552	6.8052
	Kontrol Negatif	-87.50000 ⁺	12.74469	.000	-128.9302	-46.0698
	Dangke 0.5 gram	-23.32500	12.74469	.544	-64.7552	18.1052
	Dangke 1 gram	-35.37500	12.74469	.128	-76.8052	6.0552
	Kontrol Simvastatin	-4.25000	12.74469	1.000	-45.6802	37.1802
	Kontrol Acarbose	4.55000	12.74469	1.000	-36.8802	45.9802
Kontrol Simvastatin	Kontrol Normal	-30.37500	12.74469	.254	-71.8052	11.0552
	Kontrol Negatif	-83.25000 ⁺	12.74469	.000	-124.6802	-41.8198
	Dangke 0.5 gram	-19.07500	12.74469	.744	-60.5052	22.3552
	Dangke 1 gram	-31.12500	12.74469	.230	-72.5552	10.3052
	Dangke 1,5 gram	4.25000	12.74469	1.000	-37.1802	45.6802
	Kontrol Acarbose	8.80000	12.74469	.992	-32.6302	50.2302
Kontrol Acarbose	Kontrol Normal	-39.17500	12.74469	.072	-80.6052	2.2552
	Kontrol Negatif	-92.05000 ⁺	12.74469	.000	-133.4802	-50.6198

Dangke 0.5 gram	-27.87500	12.74469	.343	-69.3052	13.5552
Dangke 1 gram	-39.92500	12.74469	.064	-81.3552	1.5052
Dangke 1,5 gram	-4.55000	12.74469	1.000	-45.9802	36.8802
Kontrol					
Simvastatin	-8.80000	12.74469	.992	-50.2302	32.6302

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

b. Analisis Statistic Kadar Lipid Darah Tikus

Tabel 4.11 hasil analisis SPSS kadar lipid darah antar kelompok

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Kolesterol Darah	Between Groups	26925.729	5	5385.146	26.053	.000
	Within Groups	3720.558	18	206.698		
	Total	30646.286	23			
Triglicerida	Between Groups	9283.559	5	1856.712	3.120	.034
	Within Groups	10712.508	18	595.139		
	Total	19996.066	23			
HDL	Between Groups	12135.483	5	2427.097	46.720	.000
	Within Groups	935.090	18	51.949		
	Total	13070.573	23			
LDL	Between Groups	5239.778	5	1047.956	3.173	.032
	Within Groups	5945.535	18	330.307		
	Total	11185.313	23			

Uji Post Hoc Test Kadar Lipid Darah Tikus

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Kelompok Perlakuan	(J) Kelompok Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Kolesterol Darah	Kontrol Normal	Kontrol Negatif	-108.32500*	10.16606	.000	-140.6331	-76.0169
		Dangke 0.5 gram	-84.62500*	10.16606	.000	-116.9331	-52.3169
		Dangke 1 gram	-54.47500*	10.16606	.001	-86.7831	-22.1669
		Dangke 1,5 gram	-72.72500*	10.16606	.000	-105.0331	-40.4169
		Kontrol Simvastatin	-54.32500*	10.16606	.001	-86.6331	-22.0169
	Kontrol Negatif	Kontrol Normal	108.32500*	10.16606	.000	76.0169	140.6331
		Dangke 0.5 gram	23.70000	10.16606	.232	-8.6081	56.0081
		Dangke 1 gram	53.85000*	10.16606	.001	21.5419	86.1581
		Dangke 1,5 gram	35.60000*	10.16606	.026	3.2919	67.9081
		Kontrol Simvastatin	54.00000*	10.16606	.001	21.6919	86.3081
	Dangke 0.5 gram	Kontrol Normal	84.62500*	10.16606	.000	52.3169	116.9331
		Kontrol Negatif	-23.70000	10.16606	.232	-56.0081	8.6081
		Dangke 1 gram	30.15000	10.16606	.076	-2.1581	62.4581
		Dangke 1,5 gram	11.90000	10.16606	.845	-20.4081	44.2081
		Kontrol Simvastatin	30.30000	10.16606	.073	-2.0081	62.6081
	Dangke 1 gram	Kontrol Normal	54.47500*	10.16606	.001	22.1669	86.7831
		Kontrol Negatif	-53.85000*	10.16606	.001	-86.1581	-21.5419
		Dangke 0.5 gram	-30.15000	10.16606	.076	-62.4581	2.1581
		Dangke 1,5 gram	-18.25000	10.16606	.493	-50.5581	14.0581
		Kontrol Simvastatin	.15000	10.16606	1.000	-32.1581	32.4581
Dangke 1,5 gram	Kontrol Normal	72.72500*	10.16606	.000	40.4169	105.0331	
	Kontrol Negatif	-35.60000*	10.16606	.026	-67.9081	-3.2919	
	Dangke 0.5 gram	-11.90000	10.16606	.845	-44.2081	20.4081	
	Dangke 1 gram	18.25000	10.16606	.493	-14.0581	50.5581	

		Kontrol Simvastatin	18.40000	10.16606	.484	-13.9081	50.7081
	Kontrol	Kontrol Normal	54.32500*	10.16606	.001	22.0169	86.6331
	Simvastatin	Kontrol Negatif	-54.00000*	10.16606	.001	-86.3081	-21.6919
		Dangke 0.5 gram	-30.30000	10.16606	.073	-62.6081	2.0081
		Dangke 1 gram	-.15000	10.16606	1.000	-32.4581	32.1581
		Dangke 1,5 gram	-18.40000	10.16606	.484	-50.7081	13.9081
Trigliserida	Kontrol Normal	Kontrol Negatif	-39.15000	17.25021	.256	-93.9718	15.6718
		Dangke 0.5 gram	3.50000	17.25021	1.000	-51.3218	58.3218
		Dangke 1 gram	12.17500	17.25021	.979	-42.6468	66.9968
		Dangke 1,5 gram	-21.25000	17.25021	.816	-76.0718	33.5718
		Kontrol Simvastatin	17.35000	17.25021	.910	-37.4718	72.1718
	Kontrol Negatif	Kontrol Normal	39.15000	17.25021	.256	-15.6718	93.9718
		Dangke 0.5 gram	42.65000	17.25021	.184	-12.1718	97.4718
		Dangke 1 gram	51.32500	17.25021	.074	-3.4968	106.1468
		Dangke 1,5 gram	17.90000	17.25021	.899	-36.9218	72.7218
		Kontrol Simvastatin	56.50000*	17.25021	.041	1.6782	111.3218
	Dangke 0.5 gram	Kontrol Normal	-3.50000	17.25021	1.000	-58.3218	51.3218
		Kontrol Negatif	-42.65000	17.25021	.184	-97.4718	12.1718
		Dangke 1 gram	8.67500	17.25021	.995	-46.1468	63.4968
		Dangke 1,5 gram	-24.75000	17.25021	.707	-79.5718	30.0718
		Kontrol Simvastatin	13.85000	17.25021	.963	-40.9718	68.6718
	Dangke 1 gram	Kontrol Normal	-12.17500	17.25021	.979	-66.9968	42.6468
		Kontrol Negatif	-51.32500	17.25021	.074	-106.1468	3.4968
		Dangke 0.5 gram	-8.67500	17.25021	.995	-63.4968	46.1468
		Dangke 1,5 gram	-33.42500	17.25021	.413	-88.2468	21.3968
		Kontrol Simvastatin	5.17500	17.25021	1.000	-49.6468	59.9968
Dangke 1,5 gram	Kontrol Normal	21.25000	17.25021	.816	-33.5718	76.0718	
	Kontrol Negatif	-17.90000	17.25021	.899	-72.7218	36.9218	
	Dangke 0.5 gram	24.75000	17.25021	.707	-30.0718	79.5718	
	Dangke 1 gram	33.42500	17.25021	.413	-21.3968	88.2468	
	Kontrol Simvastatin	38.60000	17.25021	.269	-16.2218	93.4218	
Kontrol Simvastatin	Kontrol Normal	-17.35000	17.25021	.910	-72.1718	37.4718	
	Kontrol Negatif	-56.50000*	17.25021	.041	-111.3218	-1.6782	
	Dangke 0.5 gram	-13.85000	17.25021	.963	-68.6718	40.9718	

		Dangke 1 gram	-5.17500	17.25021	1.000	-59.9968	49.6468
		Dangke 1,5 gram	-38.60000	17.25021	.269	-93.4218	16.2218
HDL	Kontrol Normal	Kontrol Negatif	-24.52500*	5.09654	.002	-40.7220	-8.3280
		Dangke 0.5 gram	-3.45000	5.09654	.982	-19.6470	12.7470
		Dangke 1 gram	.20000	5.09654	1.000	-15.9970	16.3970
		Dangke 1,5 gram	-12.85000	5.09654	.170	-29.0470	3.3470
		Kontrol Simvastatin	-63.82500*	5.09654	.000	-80.0220	-47.6280
	Kontrol Negatif	Kontrol Normal	24.52500*	5.09654	.002	8.3280	40.7220
		Dangke 0.5 gram	21.07500*	5.09654	.007	4.8780	37.2720
		Dangke 1 gram	24.72500*	5.09654	.002	8.5280	40.9220
		Dangke 1,5 gram	11.67500	5.09654	.248	-4.5220	27.8720
		Kontrol Simvastatin	-39.30000*	5.09654	.000	-55.4970	-23.1030
	Dangke 0.5 gram	Kontrol Normal	3.45000	5.09654	.982	-12.7470	19.6470
		Kontrol Negatif	-21.07500*	5.09654	.007	-37.2720	-4.8780
		Dangke 1 gram	3.65000	5.09654	.977	-12.5470	19.8470
		Dangke 1,5 gram	-9.40000	5.09654	.464	-25.5970	6.7970
		Kontrol Simvastatin	-60.37500*	5.09654	.000	-76.5720	-44.1780
	Dangke 1 gram	Kontrol Normal	-.20000	5.09654	1.000	-16.3970	15.9970
		Kontrol Negatif	-24.72500*	5.09654	.002	-40.9220	-8.5280
		Dangke 0.5 gram	-3.65000	5.09654	.977	-19.8470	12.5470
		Dangke 1,5 gram	-13.05000	5.09654	.158	-29.2470	3.1470
		Kontrol Simvastatin	-64.02500*	5.09654	.000	-80.2220	-47.8280
Dangke 1,5 gram	Kontrol Normal	12.85000	5.09654	.170	-3.3470	29.0470	
	Kontrol Negatif	-11.67500	5.09654	.248	-27.8720	4.5220	
	Dangke 0.5 gram	9.40000	5.09654	.464	-6.7970	25.5970	
	Dangke 1 gram	13.05000	5.09654	.158	-3.1470	29.2470	
	Kontrol Simvastatin	-50.97500*	5.09654	.000	-67.1720	-34.7780	
Kontrol Simvastatin	Kontrol Normal	63.82500*	5.09654	.000	47.6280	80.0220	
	Kontrol Negatif	39.30000*	5.09654	.000	23.1030	55.4970	
	Dangke 0.5 gram	60.37500*	5.09654	.000	44.1780	76.5720	
	Dangke 1 gram	64.02500*	5.09654	.000	47.8280	80.2220	
	Dangke 1,5 gram	50.97500*	5.09654	.000	34.7780	67.1720	
LDL	Kontrol Normal	Kontrol Negatif	-38.99500	12.85122	.066	-79.8366	1.8466
		Dangke 0.5 gram	-44.90000*	12.85122	.026	-85.7416	-4.0584

	Dangke 1 gram	-20.13500	12.85122	.629	-60.9766	20.7066
	Dangke 1,5 gram	-18.65000	12.85122	.697	-59.4916	22.1916
	Kontrol Simvastatin	-18.52000	12.85122	.703	-59.3616	22.3216
Kontrol Negatif	Kontrol Normal	38.99500	12.85122	.066	-1.8466	79.8366
	Dangke 0.5 gram	-5.90500	12.85122	.997	-46.7466	34.9366
	Dangke 1 gram	18.86000	12.85122	.688	-21.9816	59.7016
	Dangke 1,5 gram	20.34500	12.85122	.619	-20.4966	61.1866
	Kontrol Simvastatin	20.47500	12.85122	.613	-20.3666	61.3166
Dangke 0.5 gram	Kontrol Normal	44.90000*	12.85122	.026	4.0584	85.7416
	Kontrol Negatif	5.90500	12.85122	.997	-34.9366	46.7466
	Dangke 1 gram	24.76500	12.85122	.418	-16.0766	65.6066
	Dangke 1,5 gram	26.25000	12.85122	.358	-14.5916	67.0916
	Kontrol Simvastatin	26.38000	12.85122	.353	-14.4616	67.2216
Dangke 1 gram	Kontrol Normal	20.13500	12.85122	.629	-20.7066	60.9766
	Kontrol Negatif	-18.86000	12.85122	.688	-59.7016	21.9816
	Dangke 0.5 gram	-24.76500	12.85122	.418	-65.6066	16.0766
	Dangke 1,5 gram	1.48500	12.85122	1.000	-39.3566	42.3266
	Kontrol Simvastatin	1.61500	12.85122	1.000	-39.2266	42.4566
Dangke 1,5 gram	Kontrol Normal	18.65000	12.85122	.697	-22.1916	59.4916
	Kontrol Negatif	-20.34500	12.85122	.619	-61.1866	20.4966
	Dangke 0.5 gram	-26.25000	12.85122	.358	-67.0916	14.5916
	Dangke 1 gram	-1.48500	12.85122	1.000	-42.3266	39.3566
	Kontrol Simvastatin	.13000	12.85122	1.000	-40.7116	40.9716
Kontrol Simvastatin	Kontrol Normal	18.52000	12.85122	.703	-22.3216	59.3616
	Kontrol Negatif	-20.47500	12.85122	.613	-61.3166	20.3666
	Dangke 0.5 gram	-26.38000	12.85122	.353	-67.2216	14.4616
	Dangke 1 gram	-1.61500	12.85122	1.000	-42.4566	39.2266
	Dangke 1,5 gram	-.13000	12.85122	1.000	-40.9716	40.7116

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

