

DAFTAR PUSTAKA

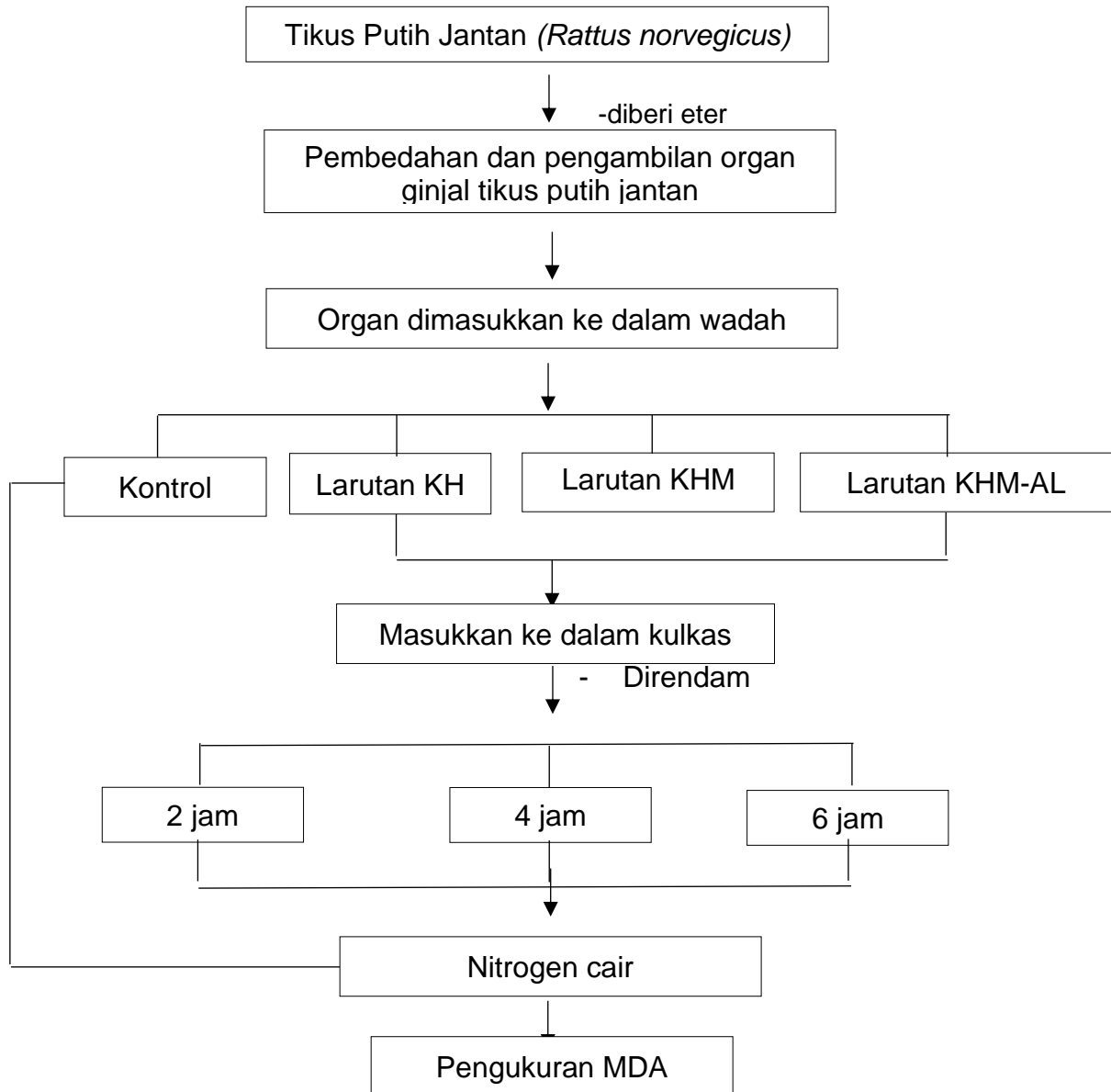
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LAMPIRAN

Lampiran 1. Pengambilan Organ



Lampiran 2. Pembuatan Larutan Kreb's Henseleit

Timbang (NaCl, KCl, NaH₂PO₄, CaCl₂, MgCl₂, Glukosa, NaHCO₃, Na-EDTA) sesuai dengan perhitungan



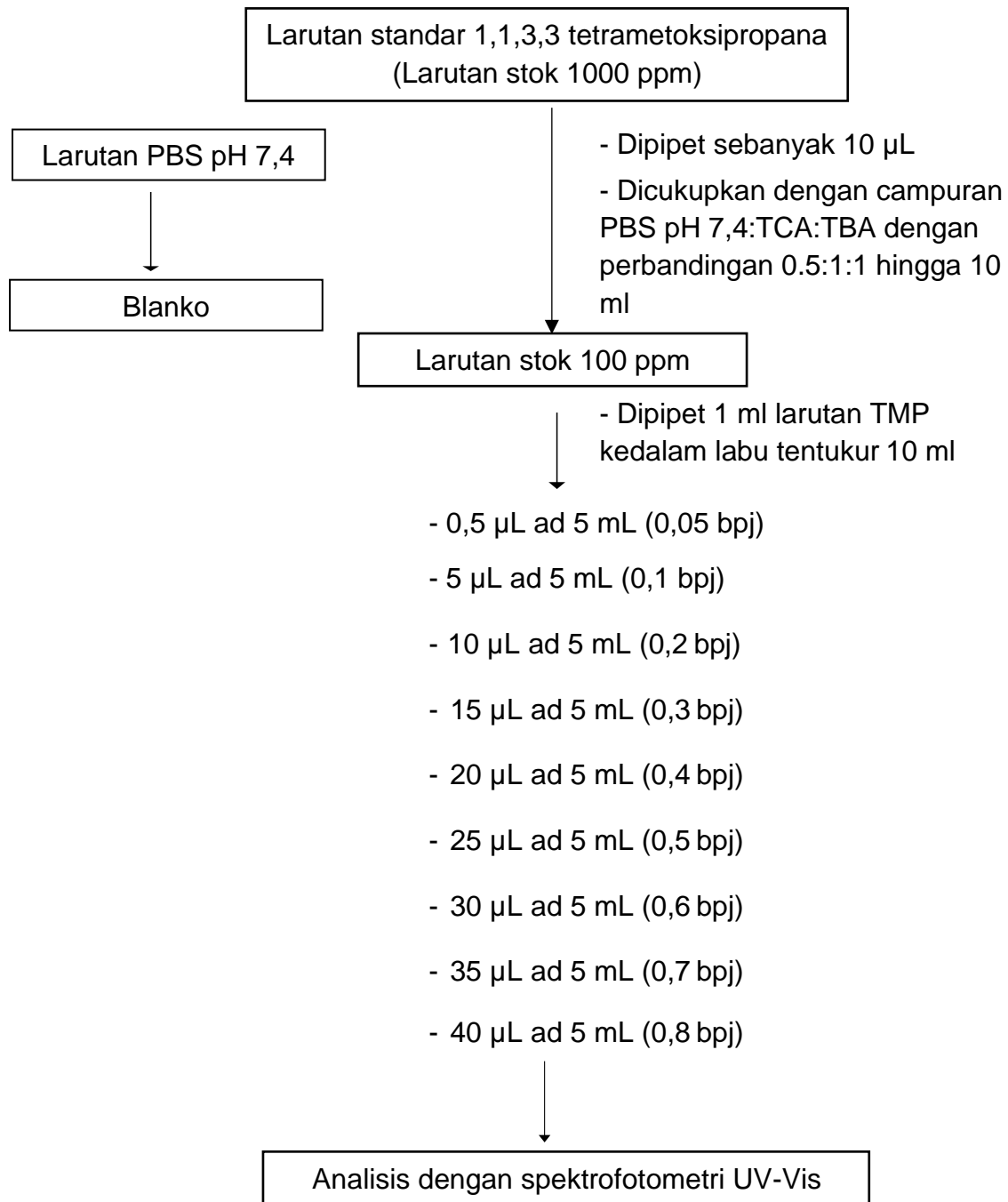
Cukupkan dengan aquadest hingga 1000 mL

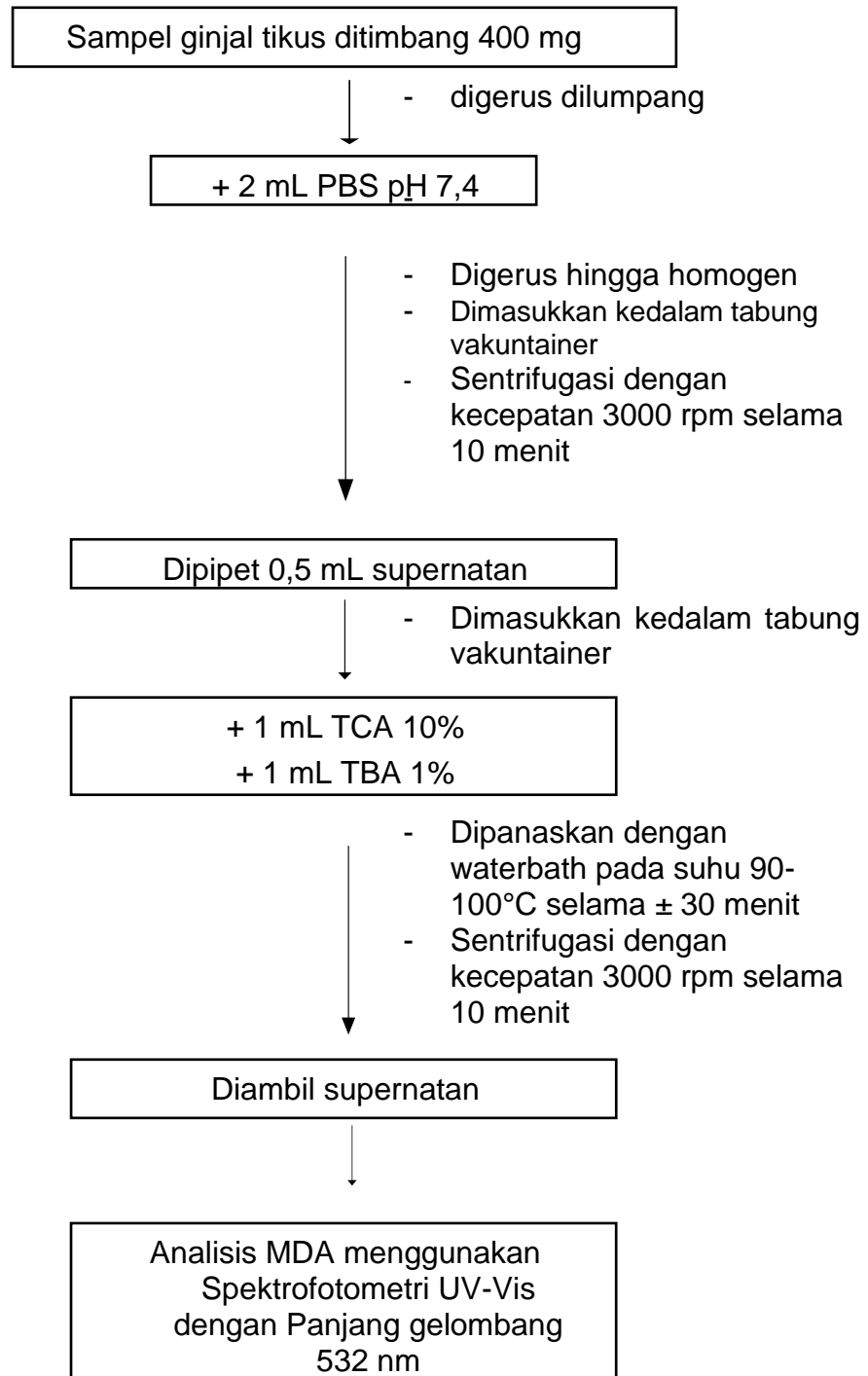


- Homogenkan

Larutan KH dan KHM

Lampiran 3. Penentuan Kurva Baku



Lampiran 4. Pengukuran Kadar Melondialdehid (MDA)

Lampiran 5. Perhitungan

1. Perhitungan Sampel

Perhitungan besar sampel dihitung menggunakan rumus Federer sebagai berikut (Federer, 1967) :

$$\text{Rumus Federer : } (t-1)(n-1) \geq 15$$

Keterangan :

t = Jumlah kelompok uji

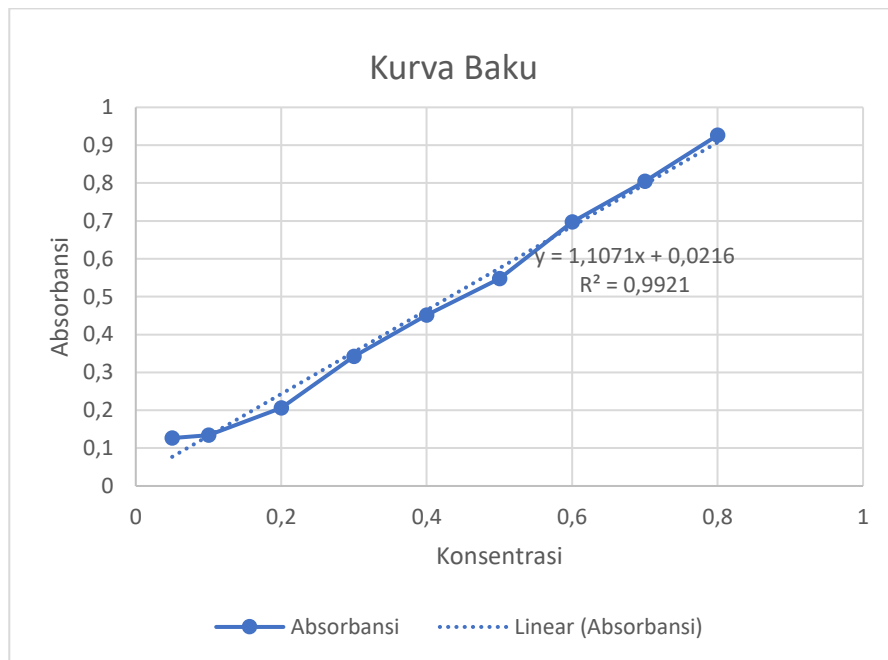
n = Jumlah sampel per kelompok

$$\begin{aligned} (10-1)(n-1) &\geq 15 \\ (9)(n-1) &\geq 15 \\ 9n-9 &\geq 15 \\ 9n &\geq 15+9 \\ 9n &\geq 24 \\ n &\geq 24/9 \\ n &\geq 2.6 \sim 3 \end{aligned}$$

Besar sampel ideal setiap kelompok menurut perhitungan rumus Federer diatas adalah 3 ekor tikus putih atau lebih. Dengan demikian jumlah tikus jantan untuk semua kelompok uji secara keseluruhan adalah 30 ekor.

Lampiran 6. Grafik Kurva Standar

Konsentrasi (ppm)	Absorbansi
0.05	0.12649
0.1	0.13439
0.2	0.20567
0.3	0.34226
0.4	0.4514
0.5	0.54758
0.6	0.69703
0.7	0.80429
0.8	0.92618



Lampiran 7. Perhitungan Nilai X dan Kadar MDA

7.1 Perhitungan Nilai X

Persamaan garis kurva baku : $Y = 1.1071x + 0.0216$

Kelompok Kontrol

$$(1) 0.20733 = 1.1071x + 0.0216$$

$$x = \frac{0.20733 - 0.0216}{1.1071}$$

$$x = 0.16779$$

$$(2) 0.25183 = 1.1071x + 0.0216$$

$$x = \frac{0.25183 - 0.0216}{1.1071}$$

$$x = 0.2079$$

$$(3) 0.2379 = 1.1071x + 0.0216$$

$$x = \frac{0.2379 - 0.0216}{1.1071}$$

$$x = 0.1953$$

Kelompok Larutan KH

KH 2 jam

$$(1) 0.27449 = 1.1071x + 0.0216$$

$$x = \frac{0.27449 - 0.0216}{1.1071}$$

$$x = 0.2284$$

$$(2) 0.46013 = 1.1071x + 0.0216$$

$$x = \frac{0.46013 - 0.0216}{1.1071}$$

$$x = 0.3961$$

$$(3) 0.22846 = 1.1071x + 0.0216$$

$$x = \frac{0.22846 - 0.0216}{1.1071}$$

$$x = 0.1864$$

KH 4 Jam

(1) $0.32073 = 1.1071x + 0.0216$

$$x = \frac{0.32073 - 0.0216}{1.1071}$$
 $x = 0.2701$

(2) $0.37004 = 1.1071x + 0.0216$

$$x = \frac{0.37004 - 0.0216}{1.1071}$$
 $x = 0.3147$

(3) $0.37817 = 1.1071x + 0.0216$

$$x = \frac{0.37817 - 0.0216}{1.1071}$$
 $x = 0.3220$

KH 6 Jam

(1) $0.42617 = 1.1071x + 0.0216$

$$x = \frac{0.42617 - 0.0216}{1.1071}$$
 $x = 0.3654$

(2) $0.35516 = 1.1071x + 0.0216$

$$x = \frac{0.35516 - 0.0216}{1.1071}$$
 $x = 0.3012$

(3) $0.35136 = 1.1071x + 0.0216$

$$x = \frac{0.35136 - 0.0216}{1.1071}$$
 $x = 0.2978$

Kelompok Larutan KHM**KHM 2 Jam**

$$(1) 0.40203 = 1.1071x + 0.0216$$

$$x = \frac{0.40203 - 0.0216}{1.1071}$$

$$x = 0.3436$$

$$(2) 0.33622 = 1.1071x + 0.0216$$

$$x = \frac{0.33622 - 0.0216}{1.1071}$$

$$x = 0.2841$$

$$(3) 0.33464 = 1.1071x + 0.0216$$

$$x = \frac{0.33464 - 0.0216}{1.1071}$$

$$x = 0.2827$$

KHM 4 Jam

$$(1) 0.29250 = 1.1071x + 0.0216$$

$$x = \frac{0.29250 - 0.0216}{1.1071}$$

$$x = 0.2446$$

$$(2) 0.41606 = 1.1071x + 0.0216$$

$$x = \frac{0.41606 - 0.0216}{1.1071}$$

$$x = 0.3563$$

$$(3) 0.31247 = 1.1071x + 0.0216$$

$$x = \frac{0.31247 - 0.0216}{1.1071}$$

$$x = 0.2627$$

KHM 6 Jam

$$(1) 0.31819 = 1.1071x + 0.0216$$

$$x = \frac{0.31819 - 0.0216}{1.1071}$$

$$x = 0.2678$$

$$(2) 0.31189 = 1.1071x + 0.0216$$

$$x = \frac{0.31189 - 0.0216}{1.1071}$$

$$x = 0.2622$$

$$(3) 0.35900 = 1.1071x + 0.0216$$

$$x = \frac{0.35900 - 0.0216}{1.1071}$$

$$x = 0.3047$$

Kelompok Larutan KHMAL**KHMAL 2 Jam**

$$(1) 0.32982 = 1.1071x + 0.0216$$

$$x = \frac{0.32982 - 0.0216}{1.1071}$$

$$x = 0.2784$$

$$(2) 0.29823 = 1.1071x + 0.0216$$

$$x = \frac{0.29823 - 0.0216}{1.1071}$$

$$x = 0.2498$$

$$(3) 0.34836 = 1.1071x + 0.0216$$

$$x = \frac{0.34836 - 0.0216}{1.1071}$$

$$x = 0.2951$$

KHMAL 4 Jam

$$(1) \ 0.28425 = 1.1071x + 0.0216$$
$$x = \frac{0.28425 - 0.0216}{1.1071}$$
$$x = 0.2372$$

$$(2) \ 0.36263 = 1.1071x + 0.0216$$
$$x = \frac{0.36263 - 0.0216}{1.1071}$$
$$x = 0.30803$$

$$(3) \ 0.31116 = 1.1071x + 0.0216$$
$$x = \frac{0.31116 - 0.0216}{1.1071}$$
$$x = 0.2331$$

KHMAL 6 Jam

$$(1) \ 0.34411 = 1.1071x + 0.0216$$
$$x = \frac{0.34411 - 0.0216}{1.1071}$$
$$x = 0.27327$$

$$(2) \ 0.32414 = 1.1071x + 0.0216$$
$$x = \frac{0.32414 - 0.0216}{1.1071}$$
$$x = 0.2732$$

$$(3) \ 0.3409 = 1.1071x + 0.0216$$
$$x = \frac{0.3409 - 0.0216}{1.1071}$$
$$x = 0.2884$$

Lampiran 8. Hasil Analisis Statistik

8.1. Hasil Statistik Kelompok 2 Jam

8.1.1 Hasil Analisis Statistik Distribusi Sampel Kelompok 2 Jam Menggunakan Metode *Shapiro-Wilk*

		Tests of Normality					
Perlakuan		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Kadar MDA	Kontrol	.263	3	.	.956	3	.594
	KH	.314	3	.	.892	3	.361
	KHM	.378	3	.	.768	3	.039
	KHMAL	.235	3	.	.978	3	.715

a. Lilliefors Significance Correction

8.1.2 Hasil Analisis Statistik Kelompok 2 Jam Menggunakan Metode One Way ANOVA

ANOVA

Kadar MDA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.021	3	0.007	1.958	0.199
Within Groups	0.029	8	0.004		
Total	0.050	11			

8.1.3 Hasil Analisis Statistik Kelompok 2 Jam Dengan *Tukey HSD*

Homogeneous Subsets

Kadar MDA

Tukey HSD^a

Perlakuan	N	Subset for alpha = 0.05
Kontrol	3	1
KH	3	0.1903623
KHMAL	3	0.2704550
KHM	3	0.2744667
KHM	3	0.3035187
Sig.		0.175

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

8.2 Hasil Statistik Kelompok 4 Jam

8.2.1 Hasil Analisis Statistik Distribusi Sampel Kelompok 4 Jam Menggunakan Metode *Shapiro-Wilk*

Tests of Normality

Perlakuan	Kolmogorov-Smirnov ^a			Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	
Kadar MDA	Kontrol	.263	3	.	.956	3	.594
	KH	.337	3	.	.854	3	.250
	KHM	.336	3	.	.856	3	.256
	KHMAL	.248	3	.	.968	3	.658

a. Lilliefors Significance Correction

8.2.2 Hasil Analisis Statistik Kelompok 4 Jam Menggunakan Metode One Way ANOVA

ANOVA

Kadar MDA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.023	3	0.008	5.012	0.030
Within Groups	0.012	8	0.001		
Total	0.035	11			

8.2.3 Hasil Analisis Statistik Distribusi Sampel Kelompok 4 Jam Menggunakan Metode One-Sample Posthoc Test

Multiple Comparisons

Dependent Variable: Kadar MDA

Tukey HSD

(I) Perlakuan		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Kontrol	KH	-.11196833*	0.03161870	0.031	-0.2132225	-0.0107141
	KHM	-0.09829767	0.03161870	0.057	-0.1995519	0.0029565
	KHMAL	-0.07857433	0.03161870	0.137	-0.1798285	0.0226799
KH	Kontrol	.11196833*	0.03161870	0.031	0.0107141	0.2132225
	KHM	0.01367067	0.03161870	0.971	-0.0875835	0.1149249
	KHMAL	0.03339400	0.03161870	0.724	-0.0678602	0.1346482
KHM	Kontrol	0.09829767	0.03161870	0.057	-0.0029565	0.1995519
	KH	-0.01367067	0.03161870	0.971	-0.1149249	0.0875835
	KHMAL	0.01972333	0.03161870	0.922	-0.0815309	0.1209775
KHMAL	Kontrol	0.07857433	0.03161870	0.137	-0.0226799	0.1798285
	KH	-0.03339400	0.03161870	0.724	-0.1346482	0.0678602
	KHM	-0.01972333	0.03161870	0.922	-0.1209775	0.0815309

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

8.2.4 Hasil Analisis Statistik Kelompok 4 Jam Dengan *Tukey HSD*

Homogeneous Subsets

Kadar MDA

Tukey HSD^a

Perlakuan	N	Subset for alpha = 0.05	
		1	2
Kontrol	3	0.1903623	
KHMAL	3	0.2689367	0.2689367
KHM	3	0.2886600	0.2886600
KH	3		0.3023307
Sig.		0.057	0.724

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

8.3 Hasil Statistik Kelompok 6 Jam

8.3.1 Hasil Analisis Statistik Distribusi Sampel Kelompok 6 Jam Menggunakan Metode *Shapiro-Wilk*

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Perlakuan	.166	12	.200*	.876	12	.078
Kadar MDA	.203	12	.184	.932	12	.397

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

	Perlakuan	Tests of Normality					
		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Kadar MDA	Kontrol	.263	3	.	.956	3	.594
	KH	.369	3	.	.788	3	.086
	KHM	.340	3	.	.848	3	.236
	KHMAL	.330	3	.	.867	3	.287

a. Lilliefors Significance Correction

8.3.2 Hasil Analisis Statistik Kelompok 6 Jam Menggunakan Metode One Way ANOVA

ANOVA

Kadar MDA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.028	3	0.009	14.825	0.001
Within Groups	0.005	8	0.001		
Total	0.033	11			

8.3.3 Hasil Analisis Statistik Distribusi Sampel Kelompok 6 Jam Menggunakan Metode One-Sample Posthoc Test

Multiple Comparisons

Dependent Variable: Kadar MDA

Tukey HSD

(I) Perlakuan		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Kontrol	KH	-.13116170 [*]	0.02040978	0.001	-0.1965210	-0.0658024
	KHM	-.08792100 [*]	0.02040978	0.011	-0.1532803	-0.0225617
	KHMAL	-.09396767 [*]	0.02040978	0.008	-0.1593270	-0.0286084
KH	Kontrol	.13116170 [*]	0.02040978	0.001	0.0658024	0.1965210
	KHM	0.04324070	0.02040978	0.226	-0.0221186	0.1086000
	KHMAL	0.03719403	0.02040978	0.330	-0.0281653	0.1025533
KHM	Kontrol	.08792100 [*]	0.02040978	0.011	0.0225617	0.1532803
	KH	-0.04324070	0.02040978	0.226	-0.1086000	0.0221186
	KHMAL	-0.00604667	0.02040978	0.990	-0.0714060	0.0593126
KHMAL	Kontrol	.09396767 [*]	0.02040978	0.008	0.0286084	0.1593270
	KH	-0.03719403	0.02040978	0.330	-0.1025533	0.0281653
	KHM	0.00604667	0.02040978	0.990	-0.0593126	0.0714060

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

8.3.4 Hasil Analisis Statistik Kelompok 6 Jam Dengan *Tukey HSD* Homogeneous Subsets

Kadar MDA

Tukey HSD^a

Perlakuan	N	Subset for alpha = 0.05	
		1	2
Kontrol	3	0.1903623	
KHM	3		0.2782833
KHMAL	3		0.2843300
KH	3		0.3215240
Sig.		1.000	0.226

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 9. Dokumentasi Penelitian

Gambar 8. Pemeliharaan dan penyiapan hewan uji



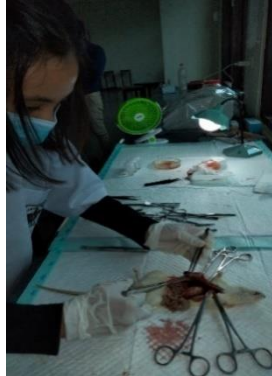
Gambar 9. Pembuatan larutan preservasi



Gambar 10. Pembuatan adenosin-lidokain



Gambar 11. Perlakuan pemberian eter terhadap hewan uji



Gambar 12. Pembedahan hewan uji



Gambar 13. Perendaman organ pada larutan preservasi



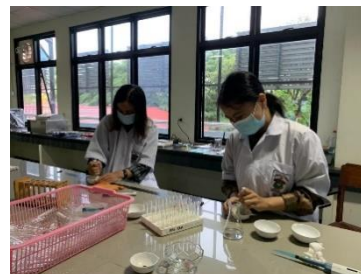
Gambar 14. Proses pemberian nitrogen cair



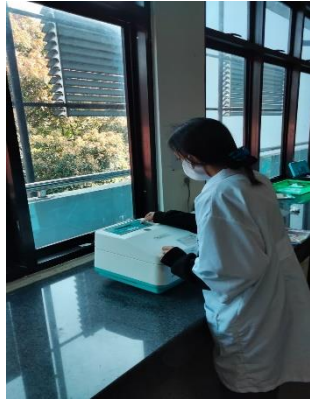
Gambar 15. Proses penyimpanan organ dalam freezer



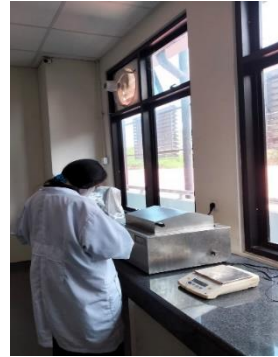
Gambar 16. Proses penimbangan organ ginjal



Gambar 17. Proses penggerusan organ



Gambar 18. Proses sentrifuse organ ginjal



Gambar 19. Proses pemanasan dengan penangas air



Gambar 20. Sampel organ ginjal yang akan diukur dengan spektrofotometri UV-Vis



Gambar 21. Pengukuran pada spektrofotometri UV-Vis

Lampiran 10. 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 : 0411-561431

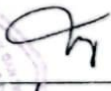



REKOMENDASI PERSETUJUAN ETIK

Nomor : 157/UN4.6.4.5.31/ PP36/ 2022

Tanggal: 6 April 2022

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

No Protokol	UH22020083	No Sponsor Protokol	
Peneliti Utama	Sesilia Lusiana Linda	Sponsor	
Judul Peneliti	Uji Efek Penambahan Adenosin-Lidokain (AL) Dalam Larutan Krebs Henseleit Terhadap Aktivitas Peroksidasi Lipid Selama Preservasi Organ Ginjal Tikus.		
No Versi Protokol	2	Tanggal Versi	6 April 2022
No Versi PSP		Tanggal Versi	
Tempat Penelitian	Fakultas Farmasi Universitas Hasanuddin Makassar		
Jenis Review	<input type="checkbox"/> Exempted <input type="checkbox"/> Expedited <input checked="" type="checkbox"/> Fullboard Tanggal 30 Maret 2022	Masa Berlaku 6 April 2022 sampai 6 April 2023	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 Lapor 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