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LAMPIRAN

Lampiran 1. Determinasi Tanaman Ruku – Ruku

HERBARIUM UNIVERSITAS ANDALAS (ANDA)
Departemen Biologi FMIPA Universitas Andalas Kampus Limau Manih Padang
Sumbar Indonesia 25163 Telp. +62-751-777427 e-mail: herbariumanda@yahoo.com

Nomor : 174/K-ID/ANDA/II/2025
Lampiran : -
Perihal : Hasil Identifikasi

Kepada yth,
Apt. Aprilya Sri Rachmayanti, M. Farm
Di
Tempat

Dengan hormat,
Sehubungan dengan surat permohonan determinasi sampel dari Institut Kesehatan Mitra Bunda No. 035/K/S1-FARM/IKMB/II/2025 tanggal 17 Februari 2025 di Herbarium Universitas Andalas Departemen Biologi FMIPA Universitas Andalas, kami telah membantu mengidentifikasi tumbuhan yang dibawa, dari:

Nama : Apt. Aprilya Sri Rachmayanti, M. Farm
Instansi : Institut Kesehatan Mitra Bunda

Berikut ini diberikan hasil identifikasi yang dikeluarkan dari Herbarium Universitas Andalas.

No	Family	Spesies	Nama Lokal
1.	Arecaceae	*Nypa fruticans* Wurmb.	Nipah
2.	Euphorbiaceae	*Aleurites moluccanus* (L.) Willd.	Kemiri
3.	Lamiaceae	*Ocimum tenuiflorum* L.	Ruku-ruku
4.	Myrtaceae	*Syzygium polyanthum* (Wight) Walp.	Salam

Demikian surat ini dibuat untuk dapat digunakan seperlunya.

Padang, 26 Februari 2025
Kepala,

Dr. Nurainas
NIP. 196908141995122001

Lampiran 2. ***Ethical Clearance***

YAYASAN HARAPAN BUNDA BATAM
INSTITUT KESEHATAN MITRA BUNDA
KOMITE ETIK PENELITIAN
Jl. Seraya No 1 KOTA BATAM Telp/Fax (0778) 429431, website : http:\\ikmb.ac.id
SURAT KEPUTUSAN MENTERI PENDIDIKAN DAN KEBUDAYAAN REPUBLIK INDONESIA No. 284/M/2020

KOMITE ETIK PENELITIAN
INSTITUT KESEHATAN MITRA BUNDA
THE RESEARCH ETHICAL COMMITTEE INSTITUT KESEHATAN MITRA BUNDA

SURAT KETERANGAN
ETHICAL APPROVAL
No. 093/K/KEP/IKMB/VIII/2025

Komite Etik Penelitian Institut Kesehatan Mitra Bunda, menyatakan dengan ini bahwa penelitian dengan judul :
The Research Ethical Committee of Institut Kesehatan Mitra Bunda states hereby that the following proposal :

"Uji Efektivitas Kombinasi Ekstrak Ruku – Ruku (*Ocinum Tenuiflorum L.*) dan Metformin Terhadap Penurunan Glukosa Mencit Putih Jantan Terinduksi Aloksan"
"Effectiveness Test of the Combination of Ruku-Ruku (Ocinum Tenuiflorum L.) Extract and Metformin on Alloxan-Induced Glucose Reduction in Male White Mice"

Peneliti Utama : Muhammad Elfitho Kurniawan
Principal Investigato

Lokasi Penelitian : Laboratorium Mikrobiologi
Research Location

Waktu Penelitian : Juni – Agustus 2025
Time Schedule

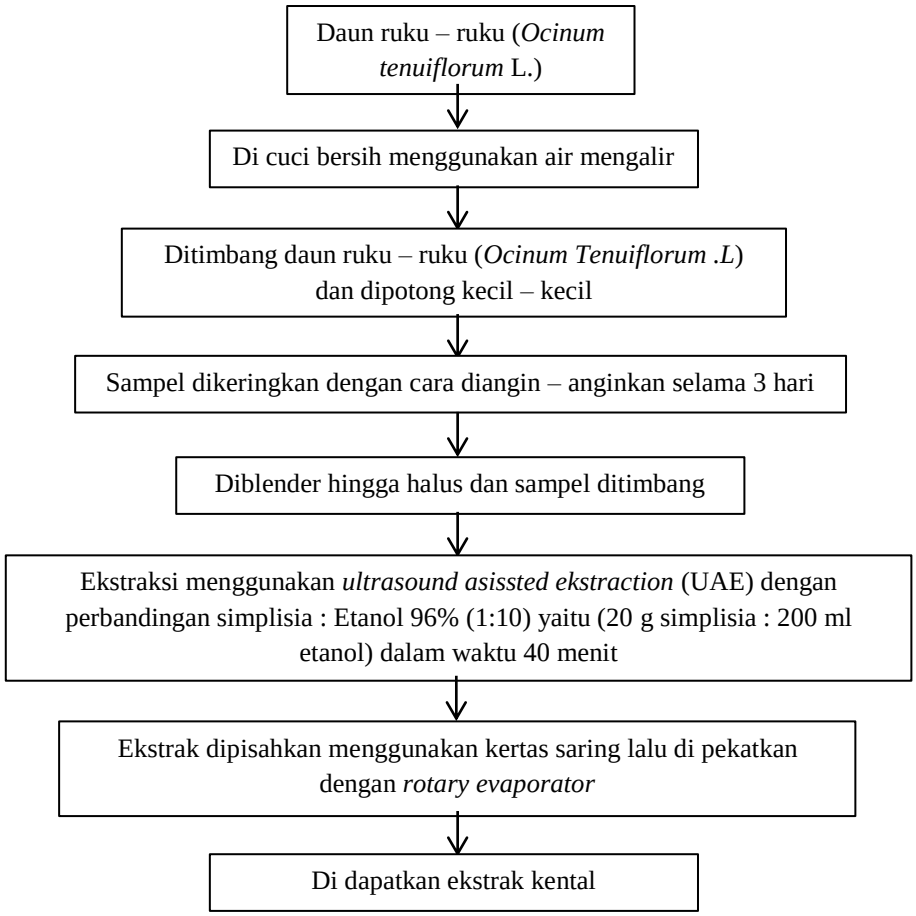
Responden/Subjek Penelitian : Hewan Percobaan (30 ekor mencit)
Respondent/Research Subject

Telah melalui prosedur kaji etik dan dinyatakan layak untuk dilaksanakan
Has proceeded the ethichal assessment procedure and been approved fot implementation

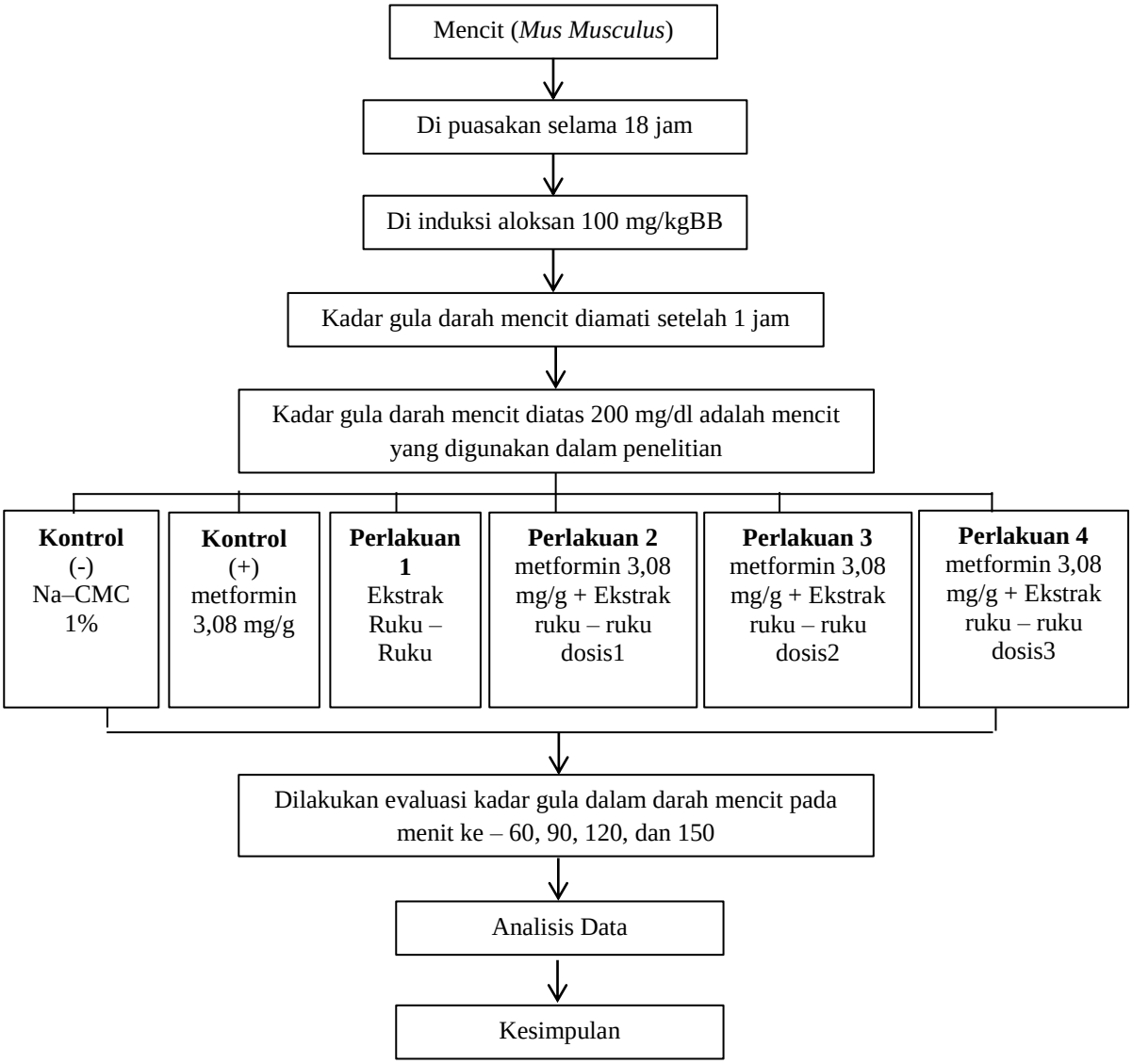
Batam, 26 Agustus 2025
Ketua / *Chairman*,

dr. Ibnu Rushd, M.K.M

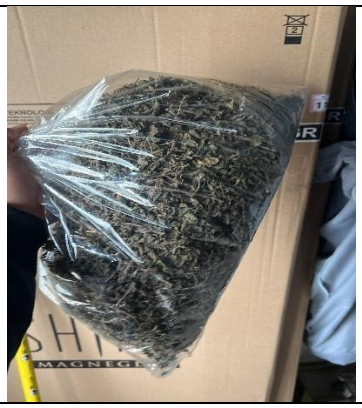
Lampiran 3. Skema Kerja Pembuatan Ekstrak

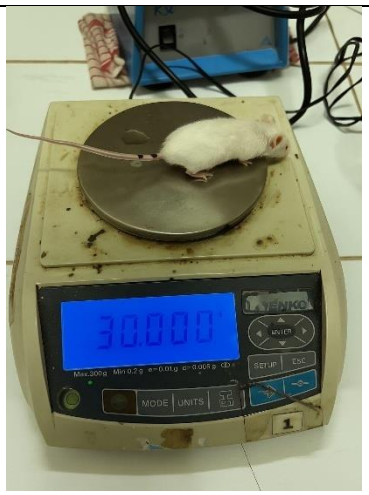


Lampiran 4. Skema kerja Perlakuan Mencit



Lampiran 5. Dokumentasi Kegiatan

	
Pengumpulan Bahan Baku	Pengeringan Sampel Daun Ruku-ruku
	
Daun ruku-ruku Setelah dihaluskan	Proses Pengayakan Sampel Ruku-ruku
	
Penimbangan Sampel Daun ruku-ruku	Proses Ultrasonifikasi Sampel

	
Proses Penyaringan sampel ruku-ruku dengan Ethanol	Pengentalan Sampel ruku-ruku dengan Rotary Evaporator
	
Penimbangan serbuk aloksan 100mg	Pembuatan larutan aloksan
	
Penimbangan mencit 30g	Penyuntikan larutan induksi aloksan

	
Pembuatan Na-CMC	Pengecekkan Kadar glukosa setelah diinduksi aloksan
	
Proses pemberian ekstrak ruku-ruku dan metformin	Pembuatan sediaan yang akan diberikan secara oral terhadap mencit
	
Hasil Pengecekkan menit ke-60	Hasil Pengecekkan menit ke-90

	
Hasil Pengecekkan menit ke-120	Hasil Pengecekkan menit ke-150

Lampiran 6. Perhitungan % Rendemen

Berat awal : 1230 g

Berat akhir ekstrak : 158 g

Rumus :

$$\%\ Rendeman = \frac{Berat\ Akhir}{Berat\ Awal} x\ 100\%$$

Perhitungan :

$$\%\ Rendeman = \frac{158\ g}{1230\ g} x\ 100\% = 12{,}8\ \%$$

Lampiran 7. Perhitungan Karakteristik Simplisia

KADAR AIR			
Berat krus kosong (A)	**Berat krus + ekstrak sebelum dipanaskan (B)**	**Berat krus + ekstrak setelah dipanaskan (C)**	**Kadar Air (%)**
60,845 g	62,845 g	62,663 g	9,1%
63,670 g	65,670 g	65,475 g	9,7%
65,490 g	67,490 g	67,325 g	8,7%

Perhitungan Kadar Air Simplisia:

$$\%\ Kadar\ Air = \frac{(B - C)}{(B - A)} x\ 100\%$$

Keterangan:

A : Berat cawan kosong

B : Berat cawan kosong + sampel sebelum pemanasan

C : Berat cawan kosong + sampel setelah pemanasan

$$\%\ Kadar\ Air\ 1 = \frac{(62{,}845 - 62{,}663)}{(62{,}845 - 60{,}845)} x\ 100\% = 9{,}1\ \%$$

$$\%\ Kadar\ Air\ 2 = \frac{(65{,}670 - 65{,}475)}{(65{,}670 - 63{,}670)} x\ 100\% = 9{,}7\ \%$$

$$\%\ Kadar\ Air\ 3 = \frac{(67{,}490 - 67{,}325)}{(67{,}490 - 65{,}490)} x\ 100\% = 8{,}7\ \%$$

$$\%\ \text{Rata} - \text{Rata}\ Kadar\ Air = \frac{(9{,}1 + 9{,}7 + 8{,}7)}{3} = 9{,}1\ \%$$

SUSUT PENGERINGAN			
Berat krus kosong (A)	**Berat krus + ekstrak sebelum dipanaskan (B)**	**Berat krus + ekstrak setelah dipanaskan (C)**	**Susut pengeringan (%)**
63,890 g	65,890 g	65,735 g	7,75%
67,320 g	69,320 g	69,195 g	6,25%
60,795 g	62,795 g	62,640 g	7,75%

Perhitungan Susut Pengeringan Simplisia:

$$\%\ Susut\ Pengeringan = \frac{(B - A) - (C - A)}{(B - A)} x\ 100\%$$

Keterangan:

A : Berat cawan kosong

B : Berat cawan kosong + sampel sebelum pemanasan

C : Berat cawan kosong + sampel setelah pemanasan

$$\%\ Susut\ Pengeringan\ 1 = \frac{(65{,}890 - 63{,}890) - (65{,}735 - 63{,}890)}{(65{,}890 - 63{,}890)} x\ 100\% \ = 7{,}75\ \%$$

$$\%\ Susut\ Pengeringan\ 2 = \frac{(69{,}320 - 67{,}320) - (69{,}195 - 67{,}320)}{(69{,}320 - 67{,}320)} x\ 100\% = 6{,}25\ \%$$

$$\%\ Susut\ Pengeringan\ 3 = \frac{(62{,}795 - 60{,}795) - (62{,}640 - 60{,}795)}{(62{,}795 - 60{,}795)} x\ 100\% = 7{,}75\ \%$$

$$\%\ \text{Rata} - \text{Rata}\ Susut\ Pengeringan = \frac{(7{,}75 + 6{,}25 + 7{,}75)}{3} = 7{,}25\ \%$$

KADAR ABU			
Berat krus kosong (A)	**Berat krus + ekstrak sebelum di oven (B)**	**Berat krus + ekstrak setelah di oven (C)**	**Kadar Abu (%)**
65,830 g	67,830 g	66,028 g	9,9%
67,480 g	69,480 g	67,663 g	9,15%
60,890 g	62,890 g	61,077 g	9,35%

Perhitungan Kadar Abu Simplisia:

$$\%\ Kadar\ Abu\ Total = \frac{(C - A)}{(B - A)} x\ 100\%$$

Keterangan:

A : Berat krush kosong

B : Berat krush kosong + sampel sebelum pemanasan

C : Berat krush kosong + sampel setelah pemanasan

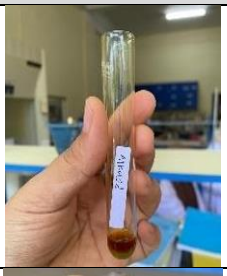
$$\%\ Kadar\ Abu\ Total\ 1 = \frac{(66{,}032 - 65{,}830)}{(67{,}830 - 65{,}830)} x\ 100\% = 9{,}9\ \%$$

$$\%\ Kadar\ Abu\ Total\ 2 = \frac{(\ 67{,}663 - 67{,}480)}{(\ 69{,}480 - 67{,}480)} x\ 100\% = 9{,}15\ \%$$

$$\%\ Kadar\ Abu\ Total\ 3 = \frac{(61{,}077 - 60{,}890)}{(62{,}890 - 60{,}890)} x\ 100\% = 9{,}35\ \%$$

$$\%\ \text{Rata} - \text{Rata}\ Kadar\ Abu\ Total = \frac{(9{,}9\% + 9{,}15\% + 9{,}35\%)}{3} = 9{,}46\ \%$$

Lampiran 8. Skrining Fitokimia Daun Ruku – Ruku

No.	Pemeriksaan	Reagen	Hasil Uji	Gambar
1.	Alkaloid	Reagen Mayer	(+)	
5	Flavonoid	HCl Pekat + Serbuk Mg	(+)	
6	Tanin	FeCl3	(+)	
4.	Saponin	Aquadest panas + HCl Pekat	(+)	

No.	Pemeriksaan	Reagen	Hasil Uji	Gambar
5.	Triterpenoid/Steroid	CH_3COOH dan H_2SO_4	(+)	

Lampiran 9. Perhitungan Dosis

3. Perhitungan Larutan Aloksan

Ditimbang aloksan 100mg, larutkan dengan NaCl 0,9% dalam beaker glass sebanyak 20 ml, aduk sampai homogen.

- Dosis Alloxan 100 mg/kgBB Tikus

  Konversi dosis ke mencit = 100 mg/kgBB x $\frac{6}{3}$ = 200 mg/kgBB mencit

  Maka, dosis Alloxan untuk mencit : 200 mg/kgBB mencit

- Larutan stok

  $= \frac{200}{1000\ gr}$ x 39 = 7.8 mg

  Akan dibuat dalam 20 ml, maka :

  7,8 mg x 20 ml = 156 mg = 0,156 gram/ml

4. Perhitungan Larutan Kontrol Negatif Na-CMC 1%

Ditimbang Na-CMC sebanyak 1 gram, larutkan dalam aquadest panas, aduk hingga homogen.

3. Perhitungan Larutan Kontrol Positif Metformin

$$\text{HED}\left(\frac{\text{mg}}{\text{kg}}\right) = Animal\ dose\left(\frac{mg}{kg}\right) x\ \frac{animal\ Km}{human\ KM}$$

Diketahui :

1. KM mencit = 3
2. KM manusia = 37
3. Berat Etiket = 500mg/tablet
4. Dosis metformin Pada Manusia = 500 mg

   HED 500 mg/60 kg BB = animal dose x 37/3

   8,33 mg/kg = animal dose x 37/3

   Animal dose = 8,33 mg/kg x 37/3

   Animal dose = 102,7 mg/kg

   102,7 mg/kg ÷ 1000 = 0,1027 mg/g

   0,1027 mg/g x 30g = 3,08mg / 30 g

   Jadi dosis metformin yang digunakan untuk hewan percobaan mencit adalah 3,08 mg / mencit 30 g

4. Perhitungan Lerutan Stok

Ditimbang 10 tablet metformin 500 mg, dihaluskan hitung bobot rata-rata 10 tablet.

$$= \frac{585 + 595 + 580 + 570 + 585 + 590 + 570 + 570 + 580 + 570}{10} = 579{,}5mg$$

$$Larutan\ stok = \frac{Volume\ yang\ diinginkan}{Volume\ \max\ mencit}\ x\ dosis\ berat\ \max\ mencit$$

$$= \frac{30\ ml}{1\ ml}\ x\ 3{,}08\ mg = 92{,}4\ mg$$

Dosis obat metformin yang dibutuhkan untuk 30 ml larutan adalah 92,4mg.

$$Berat\ obat\ yang\ ditimbang = \frac{92{,}4\ mg}{500\ mg}\ x\ 579{,}5\ mg = 107{,}1\ mg$$

Lalu disuspensikan dalam 30ml larutan Na-CMC 1%

5. Volume Pemberian

$$Vp = \frac{Berat\ hewan\ yang\ ingin\ diberikan}{Berat\ hewan\ coba\ maksimal}\ x\ Vp\ oral$$

1. Kontrol Positif Metformin

   a. Mencit I dengan BB 24

   $$\frac{24}{30}\ x\ 1\ ml = 0{,}8\ ml$$

   b. Mencit II dengan BB 25

   $$\frac{25}{30}\ x\ 1\ ml = 0{,}83\ ml$$

   c. Mencit III dengan BB 20

   $$\frac{20}{30}\ x\ 1\ ml = 0{,}66\ ml$$

   d. Mencit IV dengan BB 27

   $$\frac{27}{30}\ x\ 1\ ml = 0{,}9\ ml$$

   e. Mencit V dengan BB 30

   $$\frac{30}{30}\ x\ 1\ ml = 1\ ml$$

2. Kontrol Negatif Na-CMC

   a. Mencit I dengan BB 26

   $$\frac{26}{30}\ x\ 1\ ml = 0{,}86\ ml$$

   b. Mencit II dengan BB 26

   $$\frac{26}{30}\ x\ 1\ ml = 0{,}86\ ml$$

   c. Mencit III dengan BB 24

$\frac{24}{30}\ x\ 1\ ml = 0{,}8\ ml$

d. Mencit IV dengan BB 27

$\frac{27}{30}\ x\ 1\ ml = 0{,}9\ ml$

e. Mencit V dengan BB 25

$\frac{25}{30}\ x\ 1\ ml = 0{,}83\ ml$

3. Dosis Esktrak Ruku-ruku

Dosis 1 = 100 mg/KgBB

Dosis 2 = 200 mg/KgBB

Dosis 3 = 300 mg/KgBB

a. Dosis 1 = 100 mg/KgBB

$\frac{30}{1000}\ x\ 100\ mg = 3\ mg/mencit\ 30g$

b. Dosis 2 = 200 mg/KgBB

$\frac{30}{1000}\ x\ 200\ mg = 6mg/mencit\ 30g$

c. Dosis 3 = 300 mg/KgBB

$\frac{30}{1000}\ x\ 300\ mg = 9mg/mencit\ 30g$

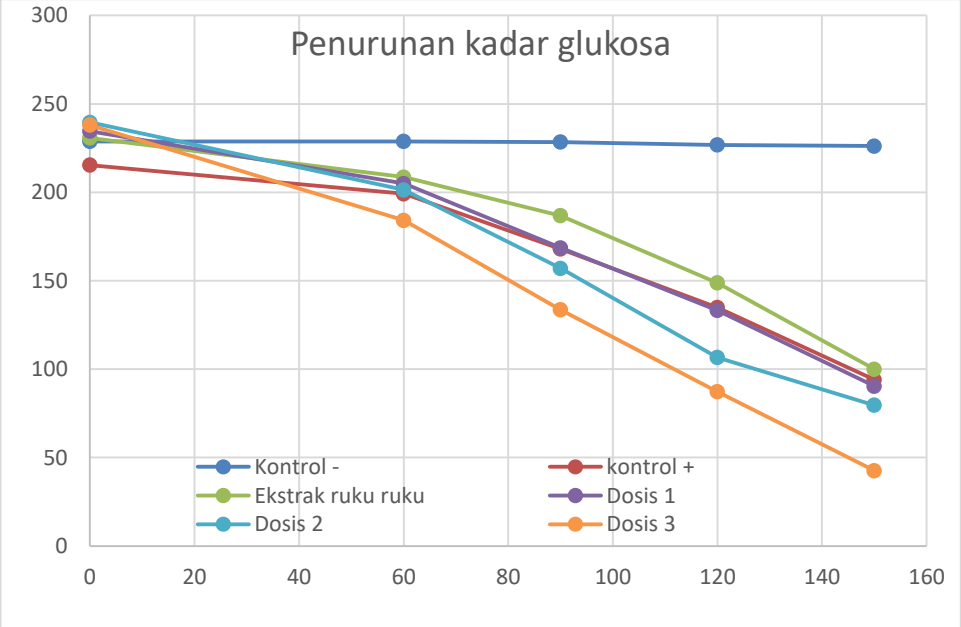
Lampiran 10. Hasil Uji Aktivitas Antidiabetes Pada Mencit Hiperglikemik

1. Tabel Kadar Glukosa Darah Pada Mencit Hiperglikemik

Kadar glukosa darah pada mencit hiperglikemik (mg/dL)						
Perlakuan	mencit	0 jam	60 menit	90 menit	120 menit	150 menit
Kontrol Negatif (Na-CMC)	1	222	222	221	221	220
Kontrol Negatif (Na-CMC)	2	254	252	252	250	250
Kontrol Negatif (Na-CMC)	3	217	223	223	220	220
Kontrol Negatif (Na-CMC)	4	252	251	250	249	247
Kontrol Negatif (Na-CMC)	5	199	196	196	194	194
Mean		228.8	228.8	228.4	226.8	226.2
Std		23.70	23.38	23.22	23.38	22.98
Kontrol Positif (metformin)	1	201	188	162	133	96
Kontrol Positif (metformin)	2	198	188	142	119	88
Kontrol Positif (metformin)	3	212	200	186	154	101
Kontrol Positif (metformin)	4	220	199	172	135	99
Kontrol Positif (metformin)	5	246	221	178	133	86
Mean		215.4	199.2	168	134.8	94
Std		19.23	13.48	16.97	12.50	6.67
Ekstrak Ruku-ruku	1	225	203	186	133	89
Ekstrak Ruku-ruku	2	235	212	190	169	117
Ekstrak Ruku-ruku	3	224	203	186	145	93
Ekstrak Ruku-ruku	4	244	219	193	156	109
Ekstrak Ruku-ruku	5	226	206	179	141	92
Mean		230.8	208.6	186.8	148.8	100
Std		8.58	6.88	5.26	14.01	12.29
Dosis 1 (Ekstrak Ruku-ruku + metformin)	1	201	172	135	101	82
Dosis 1 (Ekstrak Ruku-ruku + metformin)	2	253	232	200	158	96
Dosis 1 (Ekstrak Ruku-ruku + metformin)	3	254	220	176	132	90
Dosis 1 (Ekstrak Ruku-ruku + metformin)	4	238	198	154	119	91
Dosis 1 (Ekstrak Ruku-ruku +	5	227	203	178	156	93

metformin)						
Mean		234.6	205	168.6	133.2	90.4
Std		21.87	22.89	24.86	24.37	5.22
Dosis 2 (Ekstrak Ruku-ruku + metformin)	1	245	210	164	113	83
Dosis 2 (Ekstrak Ruku-ruku + metformin)	2	264	212	160	117	84
Dosis 2 (Ekstrak Ruku-ruku + metformin)	3	234	199	159	102	79
Dosis 2 (Ekstrak Ruku-ruku + metformin)	4	231	199	161	101	80
Dosis 2 (Ekstrak Ruku-ruku + metformin)	5	224	187	141	100	72
Mean		239.6	201.4	157	106.6	79.6
Std		15.60	10.06	9.14	7.83	4.72
Dosis 3 (Ekstrak Ruku-ruku + metformin)	1	254	203	154	98	63
Dosis 3 (Ekstrak Ruku-ruku + metformin)	2	239	188	143	90	50
Dosis 3 (Ekstrak Ruku-ruku + metformin)	3	218	141	96	72	20
Dosis 3 (Ekstrak Ruku-ruku + metformin)	4	244	200	154	89	40
Dosis 3 (Ekstrak Ruku-ruku + metformin)	5	235	189	121	87	40
Mean		238	184.2	133.6	87.2	42.6
Std		13.25	25.03	24.97	9.47	15.77

2. Grafik Penurunan Kadar Glukosa Darah Pada Mencit Hiperglikemik



3. Tabel Selisih Penurunan Kadar Gula Darah Dari Waktu Ke Waktu Pada Mencit

Selisih Penurunan Kadar glukosa darah pada mencit hiperglikemik						
Perlakuan	Waktu (Menit)					Total Penurunan Kadar gula
	0	60	90	120	150	
Kontrol -	0	+0	+0.4	+1.6	+0.6	+2,6
Kontrol +	0	+16.2	+31.2	+33.2	+40.8	+121,4
Ekstrak ruku – ruku	0	+22.2	+21.8	+38	+48.8	+130,8
Dosis 1 + metformin	0	+16.2	+31.2	+33.2	+40.8	+121,4
Dosis 2 + metformin	0	+38.2	+44.4	+50.4	+27	+160
Dosis 3 + metformin	0	+53.8	+50.6	+46.4	+44.6	+195.4

Lampiran 11. Analisis Data Anova

1. Pengujian Repeated measures ANOVA

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b] Greenhouse-Geisser	Epsilon[b] Huynh-Feldt	Epsilon[b] Lower-bound
waktu	.221	33.831	9	.000	.626	.850	.250

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept + Perlakuan
Within Subjects Design: waktu

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
waktu	Sphericity Assumed	291620.427	4	72905.107	1035.155	.000	.977
	Greenhouse-Geisser	291620.427	2.504	116473.281	1035.155	.000	.977
	Huynh-Feldt	291620.427	3.401	85740.941	1035.155	.000	.977
	Lower-bound	291620.427	1.000	291620.427	1035.155	.000	.977
waktu * Perlakuan	Sphericity Assumed	67841.573	20	3392.079	48.163	.000	.909
	Greenhouse-Geisser	67841.573	12.519	5419.189	48.163	.000	.909
	Huynh-Feldt	67841.573	17.006	3989.296	48.163	.000	.909
	Lower-bound	67841.573	5.000	13568.315	48.163	.000	.909
Error(waktu)	Sphericity Assumed	6761.200	96	70.429			
	Greenhouse-Geisser	6761.200	60.090	112.518			
	Huynh-Feldt	6761.200	81.628	82.829			
	Lower-bound	6761.200	24.000	281.717			

Pairwise Comparisons

Measure: MEASURE_1

(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
Kontrol -	kontrol +	65.520*	9.579	.000	34.307	96.733
	ekstrak ruku-ruku 100 mg	52.800*	9.579	.000	21.587	84.013
	metformin + ekstrak ruku-ruku 100mg	61.440*	9.579	.000	30.227	92.653
	metformin + ekstrak ruku-ruku 200mg	70.960*	9.579	.000	39.747	102.173
	metformin + ekstrak ruku-ruku 300mg	87.720*	9.579	.000	56.507	118.933
kontrol +	Kontrol -	-65.520*	9.579	.000	-96.733	-34.307
	ekstrak ruku-ruku 100 mg	-12.720	9.579	1.000	-43.933	18.493
	metformin + ekstrak ruku-ruku 100mg	-4.080	9.579	1.000	-35.293	27.133
	metformin + ekstrak ruku-ruku 200mg	5.440	9.579	1.000	-25.773	36.653
	metformin + ekstrak ruku-ruku 300mg	22.200	9.579	.440	-9.013	53.413
ekstrak ruku-ruku 100 mg	Kontrol -	-52.800*	9.579	.000	-84.013	-21.587
	kontrol +	12.720	9.579	1.000	-18.493	43.933
	metformin + ekstrak ruku-ruku 100mg	8.640	9.579	1.000	-22.573	39.853
	metformin + ekstrak ruku-ruku 200mg	18.160	9.579	1.000	-13.053	49.373
	metformin + ekstrak ruku-ruku 300mg	34.920*	9.579	.019	3.707	66.133
metformin + ekstrak ruku-ruku 100mg	Kontrol -	-61.440*	9.579	.000	-92.653	-30.227
	kontrol +	4.080	9.579	1.000	-27.133	35.293
	ekstrak ruku-ruku 100 mg	-8.640	9.579	1.000	-39.853	22.573
	metformin + ekstrak ruku-ruku 200mg	9.520	9.579	1.000	-21.693	40.733
	metformin + ekstrak ruku-ruku 300mg	26.280	9.579	.170	-4.933	57.493
metformin + ekstrak ruku-ruku 200mg	Kontrol -	-70.960*	9.579	.000	-102.173	-39.747
	kontrol +	-5.440	9.579	1.000	-36.653	25.773
	ekstrak ruku-ruku 100 mg	-18.160	9.579	1.000	-49.373	13.053
	metformin + ekstrak ruku-ruku 100mg	-9.520	9.579	1.000	-40.733	21.693
	metformin + ekstrak ruku-ruku 300mg	16.760	9.579	1.000	-14.453	47.973
metformin + ekstrak ruku-ruku 300mg	Kontrol -	-87.720*	9.579	.000	-118.933	-56.507
	kontrol +	-22.200	9.579	.440	-53.413	9.013
	ekstrak ruku-ruku 100 mg	-34.920*	9.579	.019	-66.133	-3.707
	metformin + ekstrak ruku-ruku 100mg	-26.280	9.579	.170	-57.493	4.933
	metformin + ekstrak ruku-ruku 200mg	-16.760	9.579	1.000	-47.973	14.453

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Pairwise Comparisons

Measure: MEASURE_1

(I) waktu	(J) waktu	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
1	2	26.667*	1.408	.000	22.317	31.017
	3	57.467*	2.206	.000	50.650	64.283
	4	91.633*	2.432	.000	84.117	99.150
	5	123.267*	2.543	.000	115.408	131.125
2	1	-26.667*	1.408	.000	-31.017	-22.317
	3	30.800*	1.476	.000	26.239	35.361
	4	64.967*	2.211	.000	58.134	71.800
	5	96.600*	2.609	.000	88.536	104.664
3	1	-57.467*	2.206	.000	-64.283	-50.650
	2	-30.800*	1.476	.000	-35.361	-26.239
	4	34.167*	1.871	.000	28.383	39.950
	5	65.800*	2.693	.000	57.478	74.122
4	1	-91.633*	2.432	.000	-99.150	-84.117
	2	-64.967*	2.211	.000	-71.800	-58.134
	3	-34.167*	1.871	.000	-39.950	-28.383
	5	31.633*	1.760	.000	26.194	37.073
5	1	-123.267*	2.543	.000	-131.125	-115.408
	2	-96.600*	2.609	.000	-104.664	-88.536
	3	-65.800*	2.693	.000	-74.122	-57.478
	4	-31.633*	1.760	.000	-37.073	-26.194

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Levene's Test of Equality of Error Variances[a]

		Levene Statistic	df1	df2	Sig.
menit_0	Based on Mean	1.263	5	24	.312
	Based on Median	.718	5	24	.616
	Based on Median and with adjusted df	.718	5	20.627	.617
	Based on trimmed mean	1.231	5	24	.325
menit_60	Based on Mean	1.397	5	24	.261
	Based on Median	.834	5	24	.539
	Based on Median and with adjusted df	.834	5	14.840	.546
	Based on trimmed mean	1.293	5	24	.300
menit_90	Based on Mean	2.762	5	24	.042
	Based on Median	1.262	5	24	.312
	Based on Median and with adjusted df	1.262	5	16.714	.326
	Based on trimmed mean	2.706	5	24	.045
menit_120	Based on Mean	2.229	5	24	.084
	Based on Median	1.506	5	24	.225
	Based on Median and with adjusted df	1.506	5	17.918	.237
	Based on trimmed mean	2.305	5	24	.076
menit_150	Based on Mean	3.561	5	24	.015
	Based on Median	1.611	5	24	.195
	Based on Median and with adjusted df	1.611	5	12.382	.229
	Based on trimmed mean	3.640	5	24	.014

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Perlakuan
Within Subjects Design: WAKTU

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Perlakuan	Statistic	df	Sig.	Statistic	df	Sig.
menit_0	Kontrol -	.236	5	.200*	.901	5	.418
	kontrol +	.205	5	.200*	.900	5	.410
	ekstrak ruku-ruku 100 mg	.312	5	.126	.837	5	.156
	metformin + ekstrak ruku-ruku 100mg	.200	5	.200*	.900	5	.411
	metformin + ekstrak ruku-ruku 200mg	.240	5	.200*	.923	5	.547
	metformin + ekstrak ruku-ruku 300mg	.210	5	.200*	.970	5	.877
menit_60	Kontrol -	.229	5	.200*	.894	5	.378
	kontrol +	.276	5	.200*	.848	5	.189
	ekstrak ruku-ruku 100 mg	.247	5	.200*	.867	5	.254
	metformin + ekstrak ruku-ruku 100mg	.180	5	.200*	.974	5	.902
	metformin + ekstrak ruku-ruku 200mg	.206	5	.200*	.917	5	.508
	metformin + ekstrak ruku-ruku 300mg	.360	5	.033	.776	5	.051
menit_90	Kontrol -	.224	5	.200*	.906	5	.446
	kontrol +	.193	5	.200*	.951	5	.747
	ekstrak ruku-ruku 100 mg	.240	5	.200*	.952	5	.751
	metformin + ekstrak ruku-ruku 100mg	.217	5	.200*	.971	5	.884
	metformin + ekstrak ruku-ruku 200mg	.387	5	.014	.745	5	.026
	metformin + ekstrak ruku-ruku 300mg	.247	5	.200*	.868	5	.258
menit_120	Kontrol -	.229	5	.200*	.894	5	.378
	kontrol +	.294	5	.184	.902	5	.423
	ekstrak ruku-ruku 100 mg	.207	5	.200*	.967	5	.855
	metformin + ekstrak ruku-ruku 100mg	.225	5	.200*	.923	5	.549
	metformin + ekstrak ruku-ruku 200mg	.322	5	.100	.822	5	.121
	metformin + ekstrak ruku-ruku 300mg	.292	5	.191	.903	5	.429
menit_150	Kontrol -	.217	5	.200*	.905	5	.440
	kontrol +	.218	5	.200*	.895	5	.385
	ekstrak ruku-ruku 100 mg	.316	5	.116	.854	5	.208
	metformin + ekstrak ruku-ruku 100mg	.269	5	.200*	.921	5	.537
	metformin + ekstrak ruku-ruku 200mg	.249	5	.200*	.896	5	.389
	metformin + ekstrak ruku-ruku 300mg	.235	5	.200*	.965	5	.844

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

a. Lilliefors Significance Correction

Post Hoc Tests

Post Hoc Tests

Multiple Comparisons

Measure: MEASURE_1

Bonferroni

(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Kontrol -	kontrol +	65.5200*	9.81876	.000	33.5267	97.5133
	ekstrak ruku-ruku 100 mg	52.8000*	9.81876	.000	20.8067	84.7933
	metformin + ekstrak ruku-ruku 100mg	61.4400*	9.81876	.000	29.4467	93.4333
	metformin + ekstrak ruku-ruku 200mg	70.9600*	9.81876	.000	38.9667	102.9533
	metformin + ekstrak ruku-ruku 300mg	90.6800*	9.81876	.000	58.6867	122.6733
kontrol +	Kontrol -	-65.5200*	9.81876	.000	-97.5133	-33.5267
	ekstrak ruku-ruku 100 mg	-12.7200	9.81876	1.000	-44.7133	19.2733
	metformin + ekstrak ruku-ruku 100mg	-4.0800	9.81876	1.000	-36.0733	27.9133
	metformin + ekstrak ruku-ruku 200mg	5.4400	9.81876	1.000	-26.5533	37.4333
	metformin + ekstrak ruku-ruku 300mg	25.1600	9.81876	.256	-6.8333	57.1533
ekstrak ruku-ruku 100 mg	Kontrol -	-52.8000*	9.81876	.000	-84.7933	-20.8067
	kontrol +	12.7200	9.81876	1.000	-19.2733	44.7133
	metformin + ekstrak ruku-ruku 100mg	8.6400	9.81876	1.000	-23.3533	40.6333
	metformin + ekstrak ruku-ruku 200mg	18.1600	9.81876	1.000	-13.8333	50.1533
	metformin + ekstrak ruku-ruku 300mg	37.8800*	9.81876	.011	5.8867	69.8733
metformin + ekstrak ruku-ruku 100mg	Kontrol -	-61.4400*	9.81876	.000	-93.4333	-29.4467
	kontrol +	4.0800	9.81876	1.000	-27.9133	36.0733
	ekstrak ruku-ruku 100 mg	-8.6400	9.81876	1.000	-40.6333	23.3533
	metformin + ekstrak ruku-ruku 200mg	9.5200	9.81876	1.000	-22.4733	41.5133
	metformin + ekstrak ruku-ruku 300mg	29.2400	9.81876	.098	-2.7533	61.2333
metformin + ekstrak ruku-ruku 200mg	Kontrol -	-70.9600*	9.81876	.000	-102.9533	-38.9667
	kontrol +	-5.4400	9.81876	1.000	-37.4333	26.5533
	ekstrak ruku-ruku 100 mg	-18.1600	9.81876	1.000	-50.1533	13.8333
	metformin + ekstrak ruku-ruku 100mg	-9.5200	9.81876	1.000	-41.5133	22.4733
	metformin + ekstrak ruku-ruku 300mg	19.7200	9.81876	.840	-12.2733	51.7133
metformin + ekstrak ruku-ruku 300mg	Kontrol -	-90.6800*	9.81876	.000	-122.6733	-58.6867
	kontrol +	-25.1600	9.81876	.256	-57.1533	6.8333
	ekstrak ruku-ruku 100 mg	-37.8800*	9.81876	.011	-69.8733	-5.8867
	metformin + ekstrak ruku-ruku 100mg	-29.2400	9.81876	.098	-61.2333	2.7533
	metformin + ekstrak ruku-ruku 200mg	-19.7200	9.81876	.840	-51.7133	12.2733

Based on observed means.
The error term is Mean Square(Error) = 241.020.

*. The mean difference is significant at the .05 level.