

L

A

M

P

I

R

A

N

Lampiran 1. Surat keterangan determinasi tanaman



UPT-LABORATORIUM

Jl. Letjen Sutoyo, Mojosongo-Solo 57127 Telp. 0271-852518, Fax. 0271-853275

Nomor : 141/DET/UPT-LAB/1.03.2021
 Hal : Hasil determinasi tumbuhan
 Lamp. : -

Nama Pemesan : Frendy Ahmad Wiratmoko
 NIM : 23175115A
 Program Studi : S1 Farmasi, Universitas Setia Budi, Surakarta
 Nama Sampel : *Citrus limon* (L) Burm.f. (Jeruk Lemon)

HASIL DETERMINASI TUMBUHAN

Klasifikasi

Kingdom : Plantae
 Super Divisi : Spermatophyta
 Divisi : Magnoliophyta
 Kelas : Magnoliopsida/Dicotyledoneae
 Ordo : Sapindales
 Famili : Rutaceae
 Genus : Citrus
 Species : *Citrus limon* (L) Burm.f.

Hasil Determinasi menurut C.A. Backer & R.C. Bakhuizen van den Brink Jr. (1963) :

1b – 2b – 3b – 4b – 12b – 13b – 14b – 17b – 18b – 19b – 20b – 21b – 22b – 23b – 24b – 25b
 – 26b – 27a – 28b – 29b – 30b – 31a – 32b – 74a – 75b – 76a – 77b – 104b – 106b – 107b –
 186b – 287b – 288b – 289b – 298b – 302a – 303a. familia 133. Rutaceae. 1b – 2a – 3a. 23.
 Citrus. 1b – 4b – 5b – 6b – 7b. *limon* (L) Burm.f.

Deskripsi:

- Habitus : Pohon berukuran sedang, dapat mencapai tinggi 6 m.
- Batang : Batang atau ranting berduri panjang tetapi tidak rapat, tegak, bulat, percabangan simpodial, berduri, hijau. Ranting tidak berduri, tangkai daun lebar 1-1,5 mm.
- Daun : Daun tunggal, warna hijau dengan tepi rata, berseling, lonjong, ujung dan pangkal meruncing, panjang 7-8 cm, lebar 4-5 cm, tangkai silindris, permukaan licin dan agak berminyak.
- Bunga : Bunga majemuk, di ujung batang dan di ketiak daun, tangkai segitiga, panjang 1-1,5 cm, hijau, kelopak bentuk bintang, hijau, benang sari panjang \pm 1,5 cm, kepala sari bentuk ginjal, kuning, tangkai putik silindris, panjang \pm 1 cm, kepala putik bulat, kuning, mahkota lima helai, bentuk bintang, putih kekuningan
- Buah : Buah buni, bentuk agak bulat, panjang 5-8 cm, tebal kulitnya 0,5-0,7 cm dan dasarnya agak menonjol, kulit kasar, warna kuning orange, padat dan berdaging tebal dengan permukaan kulit mengkilap dan rata. Warna akan berubah lebih pucat ketika matang.
- Biji : Biji bentuk bulat telur, berkerut, putih dan bijinya banyak (rata-rata 10 - 15)
- Akar : Akar tunggang.

Kepala UPT-LAB
Universitas Setia Budi



Asik Gunawan, Amdk

Surakarta, 1 Maret 2021
Penanggung jawab
Determinasi Tumbuhan

Dra. Dewi Sulistyawati. M.Sc.

Lampiran 2. Kelaikan etik

2/22/2021

KEPK-RSDM



**HEALTH RESEARCH ETHICS COMMITTEE
KOMISI ETIK PENELITIAN KESEHATAN**

Dr. Moewardi General Hospital
RSUD Dr. Moewardi

ETHICAL CLEARANCE
KELAIKAN ETIK

Nomor : 152 / II / HREC / 2021

The Health Research Ethics Committee Dr. Moewardi
Komisi Etik Penelitian Kesehatan RSUD Dr. Moewardi

after reviewing the proposal design, herewith to certify
setelah menilai rancangan penelitian yang diusulkan, dengan ini menyatakan

That the research proposal with topic :
Bahwa usulan penelitian dengan judul

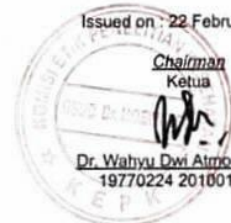
UJI EFEK ANTIINFLAMASI EKSTRAK ETANOL KULIT JERUK LEMON (Citrus limon L.) PADA TIKUS PUTIH JANTAN YANG DIINDUKSI KARAGENIN 1%

Principal investigator : Frendy Ahmad Wiratmoko
Peneliti Utama 23175115A

Location of research : Laboratorium Universitas Setia Budi
Lokasi Tempat Penelitian

Is ethically approved
Dinyatakan layak etik

Issued on : 22 Februari 2021



Chairman
Ketua
Dr. Wahyu Dwi Atmoko, So.F.
19770224 201001 1 004

Lampiran 3. Surat pembelian hewan uji



TIKUS LOVER JOGJA

Jln. Citrawati No.4, Jaranan, Banguntapan, Kec. Banguntapan, Kab.Bantul,
Daerah Istimewa Yogyakarta 55198

Yang bertanda tangan dibawah ini :

Nama : Sigit Prasetyo

Selaku pengelola Tikus Lover Jogja, menerangkan bahwa uji hewan yang digunakan untuk penelitian, oleh :

Nama : **Frendy Ahmad Wiratmoko**
NIM : **23175115A**
Institusi : **SI Farmasi, Universitas Setia Budi Surakarta**

Merupakan hewan uji dengan spesifikasi sebagai berikut :

Jenis hewan : **Tikus putih galur wistar**
Umur : **2 bulan sampai 3 bulan**
Jenis kelamin : **Jantan**
Jumlah : **25 ekor**
Keterangan : **Sehat**
Asal – usul : **Unit Pengembangan Hewan Percobaan UGM Yogyakarta**

Yang pengembangan dan pengelolaannya disesuaikan standar baku penelitian. Demikian surat keterangan ini dibuat untuk digunakan sebagaimana mestinya.

Yogyakarta, 03 Maret 2021

Hormat kami

Sigit Prasetyo

“TIKUS LOVER JOGJA”

Lampiran 4. CoA natrium diklofenak dan kuersetin



Certificate of Analysis

Productname: Diclofenacsodium
Numberofanalysis: T0002954
Batch number/Weight: 16F01-H06-00644 /100g
Producer BatchNumber: RDS/1503/0075A
Analysedaccordingto: PH.EUR 8.8

Tests	Requirement	Result	Unit	Standard remark
Appearance	White or slightly yellowish, crystalline powder	Conform		Slightly hygroscopic
Identification A	Conform	Conform		IR-spectrum
Identification D	Conform	Conform		Sodium
Appearance of solution	Clear	Conform		5% <i>m/V</i> MeOH R
Appearance of solution	<= 0,05	Conform		5% <i>m/V</i> MeOH R, UV, at 440nm
Related substances	Conform	Conform		HPLC
Impurity A	<= 0,2	< 0,05	%	
Impurity F	<= 0,15	< 0,05	%	
Unspecified impurities	<= 0,10	< 0,05	%	For each impurity
Total	<= 0,4	< 0,4	%	
Heavy metals	<= 10	Conform	ppm	
Loss on drying	<= 0,5	0,08	%	105°C 3h oven
Melting point	About 280°C	281,5	°C	
Assay Diclofenac sodium	99,0 - 101,0	99,5	% <i>m/m</i>	Dried
Residual solvents	CPMP/ICH/283/95	Conform		
TSE/BSE-statement	No contamination with TSE/BSE-risk materials	Conform		DP

Analysis performed by the authorized internal lab and lab Eurofins Parijs.

Release:
 Vasileios Dimitroulis
 Pharmacist - QA Manager / QP

06/06/2016

Expiration: 11-2021

Conclusion: APPROVED

This document has been produced electronically from our quality system and is valid without signature.

SIGMA-ALDRICH

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA

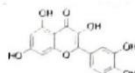
Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

Outside USA: eurtechserv@sial.com

Certificate of AnalysisProduct Name:
Quercetin - $\geq 95\%$ (HPLC), solid

Product Number:	Q4951
Batch Number:	SLCC9071
Brand:	SIGMA
CAS Number:	117-39-5
Formula:	C ₁₅ H ₁₀ O ₇
Formula Weight:	302.24 g/mol
Quality Release Date:	25 JUN 2019



Test	Specification	Result
Appearance (Color) Yellow	Conforms	Conforms
Appearance (Form)	Powder	Powder
¹ H NMR Spectrum	Conforms to Structure	Conforms
Loss on Drying	< 4 %	1 %
Purity (HPLC)	> 95 %	99 %

Carolyn Baird, Supervisor
Quality Assurance
St. Louis, Missouri US

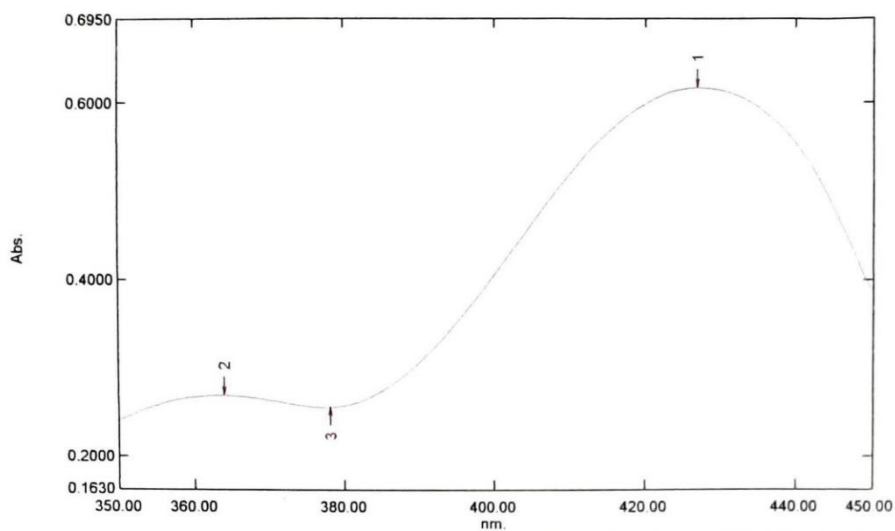
Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Lampiran 5. Hasil panjang gelombang maksimum kuersetin

Spectrum Peak Pick Report

03/17/2021 11:06:53 AM

Data Set: File_210317_110556 - RawData



[Measurement Properties]
 Wavelength Range (nm.): 350.00 to 450.00
 Scan Speed: Fast
 Sampling Interval: 1.0
 Auto Sampling Interval: Disabled
 Scan Mode: Single

No.	P/N	Wavelength	Abs.	Description
1	①	427.00	0.6169	
2	②	364.00	0.2694	
3	③	378.00	0.2561	

[Instrument Properties]
 Instrument Type: UV-1800 Series
 Measuring Mode: Absorbance
 Slit Width: 1.0 nm
 Light Source Change Wavelength: 340.0 nm
 S/R Exchange: Normal

[Attachment Properties]
 Attachment: None

[Operation]
 Threshold: 0.0010000
 Points: 4
 InterPolate: Disabled
 Average: Disabled

[Sample Preparation Properties]
 Weight:
 Volume:
 Dilution:
 Path Length:
 Additional Information:

Lampiran 6. Hasil *Operating Time* kuersetin**Kinetics Data Print Report**

03/17/2021 12:24:00 PM

Time (Minute)	RawData ...
0.000	0.433
1.000	0.423
2.000	0.413
3.000	0.403
4.000	0.394
5.000	0.390
6.000	0.388
7.000	0.386
8.000	0.384
9.000	0.382
10.000	0.380
11.000	0.379
12.000	0.377
13.000	0.375
14.000	0.373
15.000	0.372
16.000	0.370
17.000	0.369
18.000	0.367
19.000	0.366
20.000	0.364
21.000	0.363
22.000	0.362
23.000	0.360
24.000	0.359
25.000	0.357
26.000	0.356
27.000	0.354
28.000	0.353
29.000	0.352
30.000	0.350
31.000	
32.000	
33.000	
34.000	
35.000	
36.000	
37.000	
38.000	
39.000	
40.000	
41.000	
42.000	
43.000	
44.000	
45.000	
46.000	
47.000	
48.000	
49.000	
50.000	

Lampiran 7. Foto alat dan bahan



Kulit jeruk lemon basah



Kulit jeruk lemon setengah kering



Serbuk kulit jeruk lemon



Moisture balance



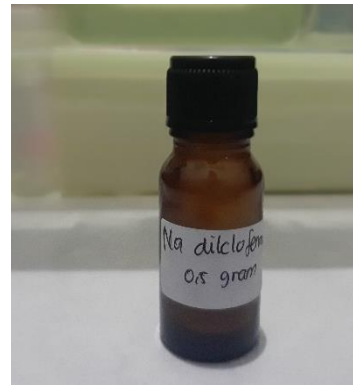
Rotary evaporator



Pletismometer



Ekstrak kental



Serbuk natrium diklofenak



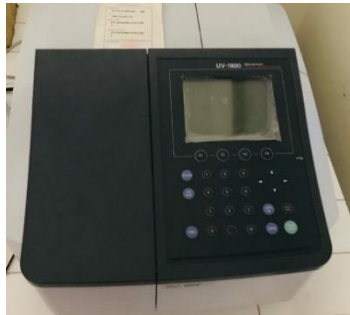
Etanol 96%



Serbuk CMC-Na



Etanol pro analisis (AR)



Spektrofotometri UV-Vis



Karagenin



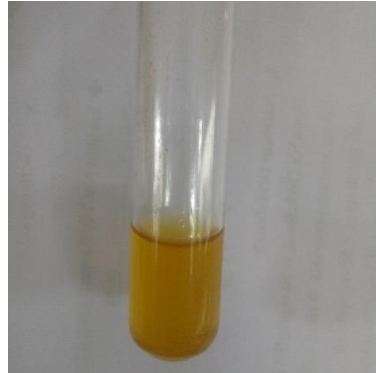
Laruran stok na diklofenak, CMC-Na,



Deret konsentrasi kuersetin

Lampiran 8. Hasil identifikasi senyawa (uji tabung)

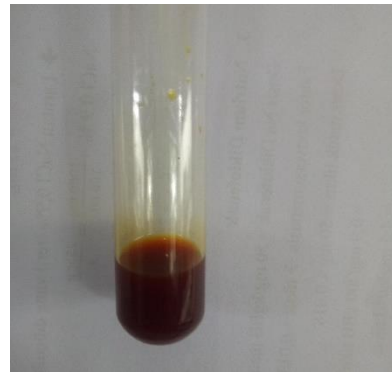
Uji Flavonoid



Uji Alkaloid (Mayer)



Uji Alkaloid (Dragendorff)



Uji Alkaloid (Bauchardat)



Uji Saponin



Uji Tanin



Uji steroid / triterpenoid

Lampiran 9. Hasil uji kelembapan serbuk

Replikasi 1



Replikasi 2



Replikasi 3

Lampiran 10. Uji antiinflamasi



Kelompok uji



Penginduksian karagenin



Pengoralan sediaan



Sebelum diinduksi karagenin



Setelah diinduksi karagenin

Lampiran 11. Perhitungan rendemen kulit jeruk lemon**1. Rendemen kulit jeruk lemon kering terhadap kulit basah**

$$\begin{aligned}\% \text{ Rendemen} &= \frac{\text{Berat kering}}{\text{Berat basah}} \times 100\% \\ &= \frac{660 \text{ g}}{5500 \text{ g}} \times 100\% \\ &= 12 \%\end{aligned}$$

2. Rendemen serbuk terhadap kulit kering

$$\begin{aligned}\% \text{ Rendemen} &= \frac{\text{Berat serbuk}}{\text{Berat kering}} \times 100\% \\ &= \frac{600 \text{ g}}{660 \text{ g}} \times 100\% \\ &= 90,91 \%\end{aligned}$$

3. Rendemen ekstrak terhadap serbuk

$$\begin{aligned}\% \text{ Rendemen} &= \frac{\text{Berat ekstrak}}{\text{Berat serbuk}} \times 100\% \\ &= \frac{121 \text{ g}}{500 \text{ g}} \times 100\% \\ &= 24,2 \%\end{aligned}$$

Lampiran 12. Perhitungan dosis

1. CMC-Na

Larutan stok dengan konsentrasi 0,5%

Volume pemberian \rightarrow 1 ml/200gBB

2. Natrium diklofenak

Larutan stok dengan konsentrasi na-diklofenak 0,05%

Volume pemberian pada tikus dengan BB 200g = $\frac{0,9 \text{ mg}}{50 \text{ mg}} \times 100 \text{ ml} = 1,8 \text{ ml}$

3. Ekstrak etanol kulit jeruk lemon

Larutan stok dengan konsentrasi ekstrak 4%

a. Dosis 100 mg/kgBB

Volume pemberian untuk tikus 200 g

$$\text{Volume} = \frac{20 \text{ mg}}{40 \text{ mg}} \times 1 \text{ ml} = 0,5 \text{ ml}$$

b. Dosis 150 mg/kgBB

Volume pemberian untuk tikus 200 g

$$\text{Volume} = \frac{30 \text{ mg}}{40 \text{ mg}} \times 1 \text{ ml} = 0,75 \text{ ml}$$

c. Dosis 200 mg/kgBB

Volume pemberian untuk tikus 200 g

$$\text{Volume} = \frac{40 \text{ mg}}{40 \text{ mg}} \times 1 \text{ ml} = 1 \text{ ml}$$

4. Karagenin

Larutan stok dengan konsentrasi Karagenin 1%

$$\begin{array}{lcl} \text{Volume pemberian} & \rightarrow \frac{1000 \text{ mg}}{100 \text{ ml}} & = \frac{1 \text{ mg}}{x} \\ & 1000 \times & = 100 \text{ ml} \\ & X & = \frac{100 \text{ ml}}{1000} \\ & X & = 0,1 \text{ ml} \end{array}$$

Lampiran 13. Berat badan tikus

Kelompok	Tikus				
	1	2	3	4	5
CMC-Na 0,5%	180 g	190 g	180 g	200 g	220 g
Na diklofenak 0,05%	190 g	200 g	200g	190 g	200 g
Ekstrak dosis 100 mg/kgBB	220 g	180 g	200 g	180 g	180 g
Ekstrak dosis 150 mg/kgBB	190 g	200 g	190 g	180 g	180 g
Ekstrak dosis 200 mg/kgBB	200 g	180 g	180 g	190 g	200 g

Lampiran 14. Volume pemberian perlakuan oral

1. CMC-Na 0,5%

Larutan stok dengan konsentrasi 0,5%

Volume pemberian → 1 ml/200gBB

- a. Tikus 1 BB 180 g : $\frac{180 \text{ g}}{200 \text{ g}} \times 1 \text{ ml} = 0,9 \text{ ml}$
- b. Tikus 2 BB 190 g : $\frac{190 \text{ g}}{200 \text{ g}} \times 1 \text{ ml} = 0,95 \text{ ml}$
- c. Tikus 3 BB 180 g : $\frac{180 \text{ g}}{200 \text{ g}} \times 1 \text{ ml} = 0,9 \text{ ml}$
- d. Tikus 4 BB 200 g : $\frac{200 \text{ g}}{200 \text{ g}} \times 1 \text{ ml} = 1 \text{ ml}$
- e. Tikus 5 BB 220 g : $\frac{220 \text{ g}}{200 \text{ g}} \times 1 \text{ ml} = 1,1 \text{ ml}$

2. Natrium diklofenak 4,5 mg/kgBB

Dosis untuk dewasa : 50 mg/70kg BB manusia

Dosis untuk tikus : 50 mg x 0,018 = 0,9 mg/200g BB tikus

Larutan stok dengan konsentrasi 0,05%

Volume pemberian untuk tikus dengan BB 200g = $\frac{0,9 \text{ mg}}{50 \text{ mg}} \times 100 \text{ ml} = 1,8 \text{ ml}$

- a. Tikus 1 BB 190 g : $\frac{190 \text{ g}}{200 \text{ g}} \times 1,8 \text{ ml} = 1,71 \text{ ml}$
- b. Tikus 2 BB 200 g : $\frac{200 \text{ g}}{200 \text{ g}} \times 1,8 \text{ ml} = 1,8 \text{ ml}$
- c. Tikus 3 BB 200 g : $\frac{200 \text{ g}}{200 \text{ g}} \times 1,8 \text{ ml} = 1,8 \text{ ml}$
- d. Tikus 4 BB 190 g : $\frac{190 \text{ g}}{200 \text{ g}} \times 1,8 \text{ ml} = 1,71 \text{ ml}$
- e. Tikus 5 BB 200 g : $\frac{200 \text{ g}}{200 \text{ g}} \times 1,8 \text{ ml} = 1,8 \text{ ml}$

3. Ekstrak dosis 100 mg/kgBB

Dosis untuk tikus : 20 mg/200g BB tikus

Volume pemberian tikus dengan BB 200 g = $\frac{20 \text{ mg}}{4000 \text{ mg}} \times 100 \text{ ml} = 0,5 \text{ ml}$

a. Tikus 1 BB 220 g : $\frac{220 \text{ g}}{200 \text{ g}} \times 0,5 \text{ ml} = 0,55 \text{ ml}$

b. Tikus 2 BB 180 g : $\frac{180 \text{ g}}{200 \text{ g}} \times 0,5 \text{ ml} = 0,45 \text{ ml}$

c. Tikus 3 BB 200 g : $\frac{200 \text{ g}}{200 \text{ g}} \times 0,5 \text{ ml} = 0,5 \text{ ml}$

d. Tikus 4 BB 180 g : $\frac{180 \text{ g}}{200 \text{ g}} \times 0,5 \text{ ml} = 0,45 \text{ ml}$

e. Tikus 5 BB 180 g : $\frac{180 \text{ g}}{200 \text{ g}} \times 0,5 \text{ ml} = 0,45 \text{ ml}$

4. Ekstrak dosis 150 mg/kgBB

Dosis untuk tikus : 30 mg/200 g BB tikus

Volume pemberian tikus dengan BB 200 g = $\frac{30 \text{ mg}}{4000 \text{ mg}} \times 100 \text{ ml} = 0,75 \text{ ml}$

a. Tikus 1 BB 190 g : $\frac{190 \text{ g}}{200 \text{ g}} \times 0,75 \text{ ml} = 0,7125 \text{ ml}$

b. Tikus 2 BB 200 g : $\frac{200 \text{ g}}{200 \text{ g}} \times 0,75 \text{ ml} = 0,75 \text{ ml}$

c. Tikus 3 BB 190 g : $\frac{190 \text{ g}}{200 \text{ g}} \times 0,75 \text{ ml} = 0,7125 \text{ ml}$

d. Tikus 4 BB 180 g : $\frac{180 \text{ g}}{200 \text{ g}} \times 0,75 \text{ ml} = 0,675 \text{ ml}$

e. Tikus 5 BB 180 g : $\frac{180 \text{ g}}{200 \text{ g}} \times 0,75 \text{ ml} = 0,675 \text{ ml}$

5. Ekstrak dosis 200 mg/kgBB

Dosis untuk tikus : 40 mg/200 g BB tikus

Volume pemberian tikus dengan BB 200 g = $\frac{40 \text{ mg}}{4000 \text{ mg}} \times 100 \text{ ml} = 1 \text{ ml}$

- a. Tikus 1 BB 200 g : $\frac{200 \text{ g}}{200 \text{ g}} \times 1 \text{ ml} = 1 \text{ ml}$
- b. Tikus 2 BB 180 g : $\frac{180 \text{ g}}{200 \text{ g}} \times 1 \text{ ml} = 0,9 \text{ ml}$
- c. Tikus 3 BB 180 g : $\frac{180 \text{ g}}{200 \text{ g}} \times 1 \text{ ml} = 0,9 \text{ ml}$
- d. Tikus 4 BB 190 g : $\frac{190 \text{ g}}{200 \text{ g}} \times 1 \text{ ml} = 0,95 \text{ ml}$
- e. Tikus 5 BB 200 g : $\frac{200 \text{ g}}{200 \text{ g}} \times 1 \text{ ml} = 1 \text{ ml}$

Lampiran 15. Volume edema kaki tikus dan nilai AUC

1. CMC-Na

Kelompok Kontrol Negatif (CMC-Na 0,5%)								
Replikasi	Jam 0	Jam 1	Jam 2	Jam 3	Jam 4	Jam 5	Jam 6	Total AUC
1	0,01	0,03	0,04	0,04	0,04	0,035	0,035	0,2075
2	0,02	0,03	0,03	0,03	0,04	0,04	0,035	0,1975
3	0,01	0,03	0,035	0,035	0,04	0,04	0,04	0,205
4	0,01	0,03	0,04	0,04	0,04	0,04	0,035	0,2125
5	0,02	0,03	0,045	0,045	0,045	0,045	0,04	0,24
Rata²	0,014	0,03	0,038	0,038	0,041	0,038	0,037	0,2125

2. Natrium diklofenak

Kelompok Kontrol Positif (Na Diklofenak 4,5 mg/kgBB)								
Replikasi	Jam 0	Jam 1	Jam 2	Jam 3	Jam 4	Jam 5	Jam 6	Total AUC
1	0,01	0,02	0,02	0,02	0,025	0,025	0,025	0,1275
2	0,01	0,025	0,025	0,02	0,02	0,025	0,02	0,13
3	0,01	0,02	0,025	0,025	0,02	0,015	0,015	0,1175
4	0,01	0,025	0,02	0,015	0,02	0,015	0,015	0,1075
5	0,015	0,02	0,03	0,025	0,025	0,02	0,02	0,1375
Rata²	0,015	0,022	0,024	0,021	0,022	0,02	0,019	0,124

3. Ekstrak dosis 100 mg/kgBB

Kelompok Kontrol Perlakuan 1 (Ekstrak Kulit Jeruk Lemon dosis 100 mg/kgBB)								
Replikasi	Jam 0	Jam 1	Jam 2	Jam 3	Jam 4	Jam 5	Jam 6	Total AUC
1	0,02	0,03	0,025	0,025	0,03	0,03	0,025	0,1625
2	0,015	0,02	0,02	0,02	0,03	0,03	0,03	0,1425
3	0,01	0,02	0,025	0,025	0,03	0,03	0,02	0,145
4	0,015	0,02	0,02	0,02	0,025	0,03	0,03	0,1375
5	0,01	0,02	0,02	0,02	0,025	0,025	0,025	0,1275
Rata²	0,014	0,022	0,022	0,022	0,028	0,029	0,029	0,143

4. Ekstrak dosis 150 mg/kgBB

Kelompok Kontrol Perlakuan 2 (Ekstrak Kulit Jeruk Lemon dosis 150 mg/kgBB)								
Replikasi	Jam 0	Jam 1	Jam 2	Jam 3	Jam 4	Jam 5	Jam 6	Total AUC
1	0,01	0,025	0,025	0,02	0,02	0,02	0,025	0,1275
2	0,01	0,03	0,02	0,02	0,025	0,025	0,02	0,135
3	0,01	0,02	0,02	0,025	0,025	0,03	0,025	0,1375
4	0,01	0,02	0,015	0,015	0,02	0,02	0,02	0,105
5	0,01	0,02	0,02	0,025	0,025	0,025	0,02	0,13
Rata²	0,01	0,023	0,02	0,021	0,023	0,024	0,022	0,127

5. Ekstrak dosis 200 mg/kgBB

Kelompok Kontrol Perlakuan 3 (Ekstrak Kulit Jeruk Lemon dosis 200 mg/kgBB)								
Replikasi	Jam 0	Jam 1	Jam 2	Jam 3	Jam 4	Jam 5	Jam 6	Total AUC
1	0,01	0,025	0,015	0,015	0,02	0,015	0,02	0,105
2	0,01	0,015	0,015	0,02	0,02	0,02	0,015	0,1025
3	0,01	0,025	0,02	0,015	0,015	0,015	0,02	0,105
4	0,01	0,025	0,03	0,02	0,015	0,015	0,015	0,1175
5	0,01	0,025	0,02	0,015	0,015	0,02	0,025	0,1125
Rata²	0,01	0,023	0,02	0,017	0,017	0,017	0,019	0,1085

Lampiran 16. Perhitungan nilai AUC

1. Kelompok Kontrol Negatif (CMC Na 0,5%)

Tikus 1

$$AUC_0^1 = \frac{0,03+0,01}{2} (1 - 0) = 0,02$$

$$AUC_1^2 = \frac{0,04+0,03}{2} (2 - 1) = 0,035$$

$$AUC_2^3 = \frac{0,04+0,04}{2} (3 - 2) = 0,04$$

$$AUC_3^4 = \frac{0,04+0,04}{2} (4 - 3) = 0,04$$

$$AUC_4^5 = \frac{0,035+0,04}{2} (5 - 4) = 0,0375$$

$$AUC_5^6 = \frac{0,035+0,035}{2} (6 - 5) = 0,035$$

$$AUC \text{ total} = 0,2075$$

Tikus 3

$$AUC_0^1 = \frac{0,03+0,01}{2} (1 - 0) = 0,02$$

$$AUC_1^2 = \frac{0,035+0,03}{2} (2 - 1) = 0,0325$$

$$AUC_2^3 = \frac{0,035+0,035}{2} (3 - 2) = 0,035$$

$$AUC_3^4 = \frac{0,04+0,035}{2} (4 - 3) = 0,0375$$

$$AUC_4^5 = \frac{0,04+0,04}{2} (5 - 4) = 0,04$$

$$AUC_5^6 = \frac{0,04+0,04}{2} (6 - 5) = 0,04$$

$$AUC \text{ total} = 0,205$$

Tikus 2

$$AUC_0^1 = \frac{0,03+0,02}{2} (1 - 0) = 0,025$$

$$AUC_1^2 = \frac{0,03+0,03}{2} (2 - 1) = 0,03$$

$$AUC_2^3 = \frac{0,03+0,03}{2} (3 - 2) = 0,03$$

$$AUC_3^4 = \frac{0,04+0,03}{2} (4 - 3) = 0,035$$

$$AUC_4^5 = \frac{0,04+0,04}{2} (5 - 4) = 0,04$$

$$AUC_5^6 = \frac{0,035+0,04}{2} (6 - 5) = 0,0375$$

$$AUC \text{ total} = 0,1975$$

Tikus 4

$$AUC_0^1 = \frac{0,03+0,01}{2} (1 - 0) = 0,02$$

$$AUC_1^2 = \frac{0,04+0,03}{2} (2 - 1) = 0,035$$

$$AUC_2^3 = \frac{0,04+0,04}{2} (3 - 2) = 0,04$$

$$AUC_3^4 = \frac{0,04+0,04}{2} (4 - 3) = 0,04$$

$$AUC_4^5 = \frac{0,04+0,04}{2} (5 - 4) = 0,04$$

$$AUC_5^6 = \frac{0,035+0,04}{2} (6 - 5) = 0,0375$$

$$AUC \text{ total} = 0,2125$$

Tikus 5

$$AUC_0^1 = \frac{0,03+0,02}{2} (1-0) = 0,025$$

$$AUC_1^2 = \frac{0,045+0,03}{2} (2-1) = 0,0375$$

$$AUC_2^3 = \frac{0,045+0,045}{2} (3-2) = 0,045$$

$$AUC_3^4 = \frac{0,045+0,045}{2} (4-3) = 0,045$$

$$AUC_4^5 = \frac{0,045+0,045}{2} (5-4) = 0,045$$

$$AUC_5^6 = \frac{0,04+0,045}{2} (6-5) = 0,0425$$

$$AUC \text{ total} = 0,24$$

2. Natrium diklofenak 4,5 mg/kgBB**Tikus 1**

$$AUC_0^1 = \frac{0,02+0,01}{2} (1-0) = 0,015$$

$$AUC_1^2 = \frac{0,02+0,02}{2} (2-1) = 0,02$$

$$AUC_2^3 = \frac{0,02+0,02}{2} (3-2) = 0,02$$

$$AUC_3^4 = \frac{0,025+0,02}{2} (4-3) = 0,0225$$

$$AUC_4^5 = \frac{0,025+0,025}{2} (5-4) = 0,025$$

$$AUC_5^6 = \frac{0,025+0,025}{2} (6-5) = 0,025$$

$$AUC \text{ total} = 0,1275$$

Tikus 2

$$AUC_0^1 = \frac{0,025+0,01}{2} (1-0) = 0,0175$$

$$AUC_1^2 = \frac{0,025+0,025}{2} (2-1) = 0,025$$

$$AUC_2^3 = \frac{0,02+0,025}{2} (3-2) = 0,0225$$

$$AUC_3^4 = \frac{0,02+0,02}{2} (4-3) = 0,02$$

$$AUC_4^5 = \frac{0,025+0,02}{2} (5-4) = 0,0225$$

$$AUC_5^6 = \frac{0,02+0,025}{2} (6-5) = 0,0225$$

$$AUC \text{ total} = 0,13$$

Tikus 3

$$AUC_0^1 = \frac{0,02+0,01}{2}(1-0)=0,015$$

$$AUC_1^2 = \frac{0,025+0,02}{2}(2-1)=0,0225$$

$$AUC_2^3 = \frac{0,025+0,025}{2}(3-2)=0,025$$

$$AUC_3^4 = \frac{0,02+0,025}{2}(4-3)=0,0225$$

$$AUC_4^5 = \frac{0,015+0,02}{2}(5-4)=0,0175$$

$$AUC_5^6 = \frac{0,015+0,015}{2}(6-5)=0,015$$

$$AUC \text{ total} = 0,1175$$

Tikus 4

$$AUC_0^1 = \frac{0,025+0,01}{2}(1-0)=0,0175$$

$$AUC_1^2 = \frac{0,02+0,025}{2}(2-1)=0,0225$$

$$AUC_2^3 = \frac{0,015+0,02}{2}(3-2)=0,0175$$

$$AUC_3^4 = \frac{0,02+0,015}{2}(4-3)=0,0175$$

$$AUC_4^5 = \frac{0,015+0,02}{2}(5-4)=0,0175$$

$$AUC_5^6 = \frac{0,015+0,015}{2}(6-5)=0,015$$

$$AUC \text{ total} = 0,1075$$

Tikus 5

$$AUC_0^1 = \frac{0,02+0,015}{2}(1-0)=0,0175$$

$$AUC_1^2 = \frac{0,03+0,02}{2}(2-1)=0,025$$

$$AUC_2^3 = \frac{0,025+0,03}{2}(3-2)=0,0275$$

$$AUC_3^4 = \frac{0,025+0,025}{2}(4-3)=0,025$$

$$AUC_4^5 = \frac{0,02+0,025}{2}(5-4)=0,0225$$

$$AUC_5^6 = \frac{0,02+0,02}{2}(6-5)=0,02$$

$$AUC \text{ total} = 0,1375$$

3. Ekstrak dosis 100 mg/kgBB

Tikus 1

$$AUC_0^1 = \frac{0,03+0,02}{2} (1 - 0) = 0,025$$

$$AUC_1^2 = \frac{0,025+0,03}{2} (2 - 1) = 0,0275$$

$$AUC_2^3 = \frac{0,025+0,025}{2} (3 - 2) = 0,025$$

$$AUC_3^4 = \frac{0,03+0,025}{2} (4 - 3) = 0,0275$$

$$AUC_4^5 = \frac{0,03+0,03}{2} (5 - 4) = 0,03$$

$$AUC_5^6 = \frac{0,025+0,03}{2} (6 - 5) = 0,0275$$

$$AUC \text{ total} = 0,1625$$

Tikus 3

$$AUC_0^1 = \frac{0,02+0,01}{2} (1 - 0) = 0,015$$

$$AUC_1^2 = \frac{0,025+0,02}{2} (2 - 1) = 0,0225$$

$$AUC_2^3 = \frac{0,025+0,025}{2} (3 - 2) = 0,025$$

$$AUC_3^4 = \frac{0,03+0,025}{2} (4 - 3) = 0,0275$$

$$AUC_4^5 = \frac{0,03+0,03}{2} (5 - 4) = 0,03$$

$$AUC_5^6 = \frac{0,02+0,03}{2} (6 - 5) = 0,025$$

$$AUC \text{ total} = 0,145$$

Tikus 2

$$AUC_0^1 = \frac{0,02+0,015}{2} (1 - 0) = 0,0175$$

$$AUC_1^2 = \frac{0,02+0,02}{2} (2 - 1) = 0,02$$

$$AUC_2^3 = \frac{0,02+0,02}{2} (3 - 2) = 0,02$$

$$AUC_3^4 = \frac{0,03+0,03}{2} (4 - 3) = 0,025$$

$$AUC_4^5 = \frac{0,03+0,03}{2} (5 - 4) = 0,03$$

$$AUC_5^6 = \frac{0,03+0,03}{2} (6 - 5) = 0,03$$

$$AUC \text{ total} = 0,1425$$

Tikus 4

$$AUC_0^1 = \frac{0,02+0,015}{2} (1 - 0) = 0,0175$$

$$AUC_1^2 = \frac{0,02+0,02}{2} (2 - 1) = 0,02$$

$$AUC_2^3 = \frac{0,02+0,02}{2} (3 - 2) = 0,02$$

$$AUC_3^4 = \frac{0,025+0,02}{2} (4 - 3) = 0,0225$$

$$AUC_4^5 = \frac{0,03+0,025}{2} (5 - 4) = 0,0275$$

$$AUC_5^6 = \frac{0,03+0,03}{2} (6 - 5) = 0,03$$

$$AUC \text{ total} = 0,1375$$

Tikus 5

$$AUC_0^1 = \frac{0,02+0,01}{2}(1-0)=0,015$$

$$AUC_1^2 = \frac{0,02+0,02}{2}(2-1)=0,02$$

$$AUC_2^3 = \frac{0,02+0,02}{2}(3-2)=0,02$$

$$AUC_3^4 = \frac{0,025+0,02}{2}(4-3)=0,0225$$

$$AUC_4^5 = \frac{0,025+0,025}{2}(5-4)=0,025$$

$$AUC_5^6 = \frac{0,025+0,025}{2}(6-5)=0,025$$

$$AUC \text{ total} = 0,1275$$

4. Ekstrak dosis 150 mg/kgBB**Tikus 1**

$$AUC_0^1 = \frac{0,025+0,01}{2}(1-0)=0,0175$$

$$AUC_1^2 = \frac{0,025+0,025}{2}(2-1)=0,025$$

$$AUC_2^3 = \frac{0,02+0,025}{2}(3-2)=0,0225$$

$$AUC_3^4 = \frac{0,02+0,02}{2}(4-3)=0,02$$

$$AUC_4^5 = \frac{0,02+0,02}{2}(5-4)=0,02$$

$$AUC_5^6 = \frac{0,025+0,02}{2}(6-5)=0,0225$$

$$AUC \text{ total} = 0,1275$$

Tikus 2

$$AUC_0^1 = \frac{0,03+0,01}{2}(1-0)=0,02$$

$$AUC_1^2 = \frac{0,02+0,03}{2}(2-1)=0,025$$

$$AUC_2^3 = \frac{0,02+0,02}{2}(3-2)=0,02$$

$$AUC_3^4 = \frac{0,025+0,02}{2}(4-3)=0,0225$$

$$AUC_4^5 = \frac{0,025+0,025}{2}(5-4)=0,025$$

$$AUC_5^6 = \frac{0,02+0,025}{2}(6-5)=0,0225$$

$$AUC \text{ total} = 0,135$$

Tikus 3

$$AUC_0^1 = \frac{0,02+0,01}{2} (1 - 0) = 0,015$$

$$AUC_1^2 = \frac{0,02+0,02}{2} (2 - 1) = 0,02$$

$$AUC_2^3 = \frac{0,025+0,02}{2} (3 - 2) = 0,0225$$

$$AUC_3^4 = \frac{0,025+0,025}{2} (4 - 3) = 0,025$$

$$AUC_4^5 = \frac{0,03+0,025}{2} (5 - 4) = 0,0275$$

$$AUC_5^6 = \frac{0,025+0,03}{2} (6 - 5) = 0,0275$$

$$AUC \text{ total} = 0,1375$$

Tikus 5

$$AUC_0^1 = \frac{0,02+0,01}{2} (1 - 0) = 0,015$$

$$AUC_1^2 = \frac{0,02+0,02}{2} (2 - 1) = 0,02$$

$$AUC_2^3 = \frac{0,025+0,02}{2} (3 - 2) = 0,0225$$

$$AUC_3^4 = \frac{0,025+0,025}{2} (4 - 3) = 0,025$$

$$AUC_4^5 = \frac{0,025+0,025}{2} (5 - 4) = 0,025$$

$$AUC_5^6 = \frac{0,02+0,025}{2} (6 - 5) = 0,0225$$

$$AUC \text{ total} = 0,13$$

Tikus 4

$$AUC_0^1 = \frac{0,02+0,01}{2} (1 - 0) = 0,015$$

$$AUC_1^2 = \frac{0,015+0,02}{2} (2 - 1) = 0,0175$$

$$AUC_2^3 = \frac{0,015+0,015}{2} (3 - 2) = 0,015$$

$$AUC_3^4 = \frac{0,02+0,015}{2} (4 - 3) = 0,0175$$

$$AUC_4^5 = \frac{0,02+0,02}{2} (5 - 4) = 0,02$$

$$AUC_5^6 = \frac{0,02+0,02}{2} (6 - 5) = 0,02$$

$$AUC \text{ total} = 0,105$$

5. Ekstrak 200 mg/kgBB

Tikus 1

$$AUC_0^1 = \frac{0,025+0,01}{2}(1-0)=0,0175$$

$$AUC_1^2 = \frac{0,015+0,025}{2}(2-1)=0,02$$

$$AUC_2^3 = \frac{0,015+0,015}{2}(3-2)=0,015$$

$$AUC_3^4 = \frac{0,02+0,015}{2}(4-3)=0,0175$$

$$AUC_4^5 = \frac{0,015+0,02}{2}(5-4)=0,0175$$

$$AUC_5^6 = \frac{0,02+0,015}{2}(6-5)=0,0175$$

$$AUC \text{ total} = 0,105$$

Tikus 3

$$AUC_0^1 = \frac{0,025+0,01}{2}(1-0)=0,0175$$

$$AUC_1^2 = \frac{0,02+0,025}{2}(2-1)=0,0225$$

$$AUC_2^3 = \frac{0,015+0,02}{2}(3-2)=0,0175$$

$$AUC_3^4 = \frac{0,015+0,015}{2}(4-3)=0,015$$

$$AUC_4^5 = \frac{0,015+0,015}{2}(5-4)=0,015$$

$$AUC_5^6 = \frac{0,02+0,015}{2}(6-5)=0,0175$$

$$AUC \text{ total} = 0,105$$

Tikus 5

$$AUC_0^1 = \frac{0,025+0,01}{2}(1-0)=0,0175$$

$$AUC_1^2 = \frac{0,02+0,025}{2}(2-1)=0,0225$$

$$AUC_2^3 = \frac{0,015+0,02}{2}(3-2)=0,0175$$

$$AUC_3^4 = \frac{0,015+0,015}{2}(4-3)=0,015$$

$$AUC_4^5 = \frac{0,02+0,015}{2}(5-4)=0,0175$$

$$AUC_5^6 = \frac{0,025+0,02}{2}(6-5)=0,0225$$

$$AUC \text{ total} = 0,1125$$

Tikus 2

$$AUC_0^1 = \frac{0,015+0,01}{2}(1-0)=0,0125$$

$$AUC_1^2 = \frac{0,015+0,015}{2}(2-1)=0,015$$

$$AUC_2^3 = \frac{0,02+0,015}{2}(3-2)=0,0175$$

$$AUC_3^4 = \frac{0,02+0,02}{2}(4-3)=0,02$$

$$AUC_4^5 = \frac{0,02+0,02}{2}(5-4)=0,02$$

$$AUC_5^6 = \frac{0,015+0,02}{2}(6-5)=0,0175$$

$$AUC \text{ total} = 0,1025$$

Tikus 4

$$AUC_0^1 = \frac{0,025+0,01}{2}(1-0)=0,0175$$

$$AUC_1^2 = \frac{0,03+0,025}{2}(2-1)=0,0275$$

$$AUC_2^3 = \frac{0,02+0,03}{2}(3-2)=0,025$$

$$AUC_3^4 = \frac{0,015+0,02}{2}(4-3)=0,0175$$

$$AUC_4^5 = \frac{0,015+0,015}{2}(5-4)=0,015$$

$$AUC_5^6 = \frac{0,015+0,015}{2}(6-5)=0,015$$

$$AUC \text{ total} = 0,1175$$

Lampiran 17. Persentase daya antiinflamasi

Replikasi	Tikus 1	Tikus 2	Tikus 3	Tikus 4	Tikus 5	Rata ²
Na diklofenak 4,5 mg/kgBB	38,55	34,18	42,68	49,41	42,71	41,64
Ekstrak 100 mg/kgBB	21,69	27,85	29,27	35,29	46,87	32,70
Ekstrak 150 mg/kgBB	38,55	31,64	32,93	50,59	45,83	40,23
Ekstrak 200 mg/kgBB	49,40	48,10	48,78	44,70	53,12	48,94

Perhitungan % DAI

1. Natrium diklofenak

$$\text{Tikus 1} \rightarrow \% \text{ DAI} = \frac{0,2075 - 0,1275}{0,2075} \times 100\% = 38,55 \%$$

$$\text{Tikus 2} \rightarrow \% \text{ DAI} = \frac{0,1975 - 0,13}{0,1975} \times 100\% = 34,18 \%$$

$$\text{Tikus 3} \rightarrow \% \text{ DAI} = \frac{0,205 - 0,1175}{0,205} \times 100\% = 42,68 \%$$

$$\text{Tikus 4} \rightarrow \% \text{ DAI} = \frac{0,2125 - 0,1075}{0,2125} \times 100\% = 49,41 \%$$

$$\text{Tikus 5} \rightarrow \% \text{ DAI} = \frac{0,24 - 0,1375}{0,24} \times 100\% = 42,71 \%$$

$$\% \text{ DAI} = \frac{0,2125 - 0,124}{0,2125} \times 100\% = 41,64 \%$$

2. Ekstrak dosis 100 mg/kgBB

$$\text{Tikus 1} \rightarrow \% \text{ DAI} = \frac{0,2075 - 0,1625}{0,2075} \times 100\% = 21,69 \%$$

$$\text{Tikus 2} \rightarrow \% \text{ DAI} = \frac{0,1975 - 0,1425}{0,1975} \times 100\% = 27,85 \%$$

$$\text{Tikus 3} \rightarrow \% \text{ DAI} = \frac{0,205 - 0,145}{0,205} \times 100\% = 29,27 \%$$

$$\text{Tikus 4} \rightarrow \% \text{ DAI} = \frac{0,2125 - 0,1375}{0,2125} \times 100\% = 35,29 \%$$

$$\text{Tikus 5} \rightarrow \% \text{ DAI} = \frac{0,24 - 0,1275}{0,24} \times 100\% = 46,87 \%$$

$$\% \text{ DAI} = \frac{0,2125 - 0,143}{0,2125} \times 100\% = 32,70 \%$$

3. Ekstrak dosis 150 mg/kgBB

$$\text{Tikus 1} \rightarrow \% \text{ DAI} = \frac{0,2075 - 0,1275}{0,2075} \times 100\% = 38,55 \%$$

$$\text{Tikus 2} \rightarrow \% \text{ DAI} = \frac{0,1975 - 0,135}{0,1975} \times 100\% = 31,64 \%$$

$$\text{Tikus 3} \rightarrow \% \text{ DAI} = \frac{0,205 - 0,1375}{0,205} \times 100\% = 32,93 \%$$

$$\text{Tikus 4} \rightarrow \% \text{ DAI} = \frac{0,2125 - 0,105}{0,2125} \times 100\% = 50,59 \%$$

$$\text{Tikus 5} \rightarrow \% \text{ DAI} = \frac{0,24 - 0,13}{0,24} \times 100\% = 45,83 \%$$

$$\% \text{ DAI} = \frac{0,2125 - 0,127}{0,2125} \times 100\% = 40,23 \%$$

4. Ekstrak dosis 200 mg/kgBB

$$\text{Tikus 1} \rightarrow \% \text{ DAI} = \frac{0,2075 - 0,105}{0,2075} \times 100\% = 49,40 \%$$

$$\text{Tikus 2} \rightarrow \% \text{ DAI} = \frac{0,1975 - 0,1025}{0,1975} \times 100\% = 48,10 \%$$

$$\text{Tikus 3} \rightarrow \% \text{ DAI} = \frac{0,205 - 0,105}{0,205} \times 100\% = 48,78 \%$$

$$\text{Tikus 4} \rightarrow \% \text{ DAI} = \frac{0,2125 - 0,1175}{0,2125} \times 100\% = 44,70 \%$$

$$\text{Tikus 5} \rightarrow \% \text{ DAI} = \frac{0,24 - 0,1125}{0,24} \times 100\% = 53,12 \%$$

$$\% \text{ DAI} = \frac{0,2125 - 0,1085}{0,2125} \times 100\% = 48,94 \%$$

Lampiran 18. Perhitungan kadar flavonoid total

a. Absorbansi sampel

Replikasi	Absorbansi
1	0,344
2	0,327
3	0,349
4	0,395
5	0,366

b. Kadar

Replikasi 1

$$y = a + bx$$

$$0,344 = 0,0927 + 0,0046x$$

$$x = 54,630$$

Replikasi 3

$$y = a + bx$$

$$0,349 = 0,0927 + 0,0046x$$

$$x = 55,717$$

Replikasi 5

$$y = a + bx$$

$$0,366 = 0,0927 + 0,0046x$$

$$x = 59,413$$

Replikasi 2

$$y = a + bx$$

$$0,327 = 0,0927 + 0,0046x$$

$$x = 50,934$$

Replikasi 4

$$y = a + bx$$

$$0,395 = 0,0927 + 0,0046x$$

$$x = 65,717$$

c. Nilai SD

$$\begin{aligned}
 SD &= \sqrt{\frac{\sum |x - \bar{x}|^2}{n-1}} \\
 &= \sqrt{\frac{\sum |(-0,5435) + (-4,2395) + 0,5435 + 4,2395|^2}{4-1}} \\
 &= \sqrt{\frac{91,508}{3}} \\
 &= \sqrt{30,502} \\
 &= 5,522
 \end{aligned}$$

d. Batas atas dan batas bawah

$$R1 \rightarrow 54,630$$

$$R2 \rightarrow 50,934$$

$$R3 \rightarrow 55,717$$

$$R4 \rightarrow 65,717 \text{ (dicurigai karena nilai jauh berbeda dengan yang lain)}$$

$$R5 \rightarrow 59,413$$

$$\Sigma x = R1 + R2 + R3 + R5$$

$$= 54,630 + 50,934 + 55,717 + 59,413$$

$$= 220,694$$

$$\bar{X} = \frac{\Sigma x}{n} = \frac{220,694}{4}$$

$$= 55,1735$$

$$\text{Batas atas} = \bar{X} + 2SD$$

$$= 55,1733 + 2 (5,522)$$

$$= 66,2175$$

$$\text{Batas bawah} = \bar{X} - 2SD$$

$$= 55,1733 - 2 (5,522)$$

$$= 44,1295$$

Jadi, replikasi 1 sampai 5 masuk range.

e. Kadar flavonoid total

$$R1 \rightarrow 54,630$$

$$R2 \rightarrow 50,934$$

$$R3 \rightarrow 55,717$$

$$R4 \rightarrow 65,717$$

$$R5 \rightarrow 59,413$$

$$\Sigma x = R1 + R2 + R3 + R4 + R5$$

$$= 54,630 + 50,934 + 55,717 + 65,717 + 59,413$$

$$= 286,411$$

$$\bar{X} = \frac{\Sigma x}{n} = \frac{286,411}{5}$$

$$= 57,2822 \text{ ppm}$$

Kadar flavonoid total = 57,2822 mg/L

Lampiran 19. Hasil uji statistik

1. Uji statistik pada data AUC

Uji *Shapiro wilk*

Kriteria uji :

Sig. < 0,05 berarti Ho ditolak

Sig. > 0,05 Ho diterima

Hasil :

		Tests of Normality					
	kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
hasil	CmC Na	,300	5	,161	,850	5	,195
	Na diklofenak 4,5 mg/kgBB	,218	5	,200*	,967	5	,855
	Ekstrak 100 mg/kgBB	,238	5	,200*	,960	5	,806
	Ekstrak 150 mg/kgBB	,315	5	,116	,821	5	,119
	Ekstrak 200 mg/kgBB	,312	5	,127	,881	5	,314

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

a. Lilliefors Significance Correction

Kesimpulan : Sig. > 0,05 maka data AUC terdistribusi normal.

Uji *Levene*

Kriteria uji :

Sig. < 0,05 berarti Ho ditolak

Sig. > 0,05 Ho diterima

Hasil :

Test of Homogeneity of Variances

hasil			
Levene Statistic	df1	df2	Sig.
,379	4	20	,821

Kesimpulan : Sig. > 0,05 maka data AUC homogen.

Uji *One Way* ANOVA

Kriteria uji :

Sig. < 0,05 berarti Ho ditolak

Sig. > 0,05 Ho diterima

Hasil :

ANOVA

hasil

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,033	4	,008	53,745	,000
Within Groups	,003	20	,000		
Total	,036	24			

Kesimpulan : Sig. < 0,05 maka Ho ditolak. Terdapat perbedaan data AUC antar kelompok perlakuan.

Uji LSD

Kriteria uji :

Sig. < 0,05 berarti Ho ditolak

Sig. > 0,05 Ho diterima

Hasil :

Multiple Comparisons

Dependent Variable: hasil

LSD

(I) kelompok	(J) kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
CmC Na	Na diklofenak 4,5 mg/kgBB	,0885000*	,0078581	,000	,072108	,104892
	Ekstrak 100 mg/kgBB	,0695000*	,0078581	,000	,053108	,085892
	Ekstrak 150 mg/kgBB	,0855000*	,0078581	,000	,069108	,101892
	Ekstrak 200 mg/kgBB	,1040000*	,0078581	,000	,087608	,120392
Na diklofenak 4,5 mg/kgBB	CmC Na	-,0885000*	,0078581	,000	-,104892	-,072108
	Ekstrak 100 mg/kgBB	-,0190000*	,0078581	,025	-,035392	-,002608
	Ekstrak 150 mg/kgBB	-,0030000	,0078581	,707	-,019392	,013392
	Ekstrak 200 mg/kgBB	,0155000	,0078581	,063	-,000892	,031892
Ekstrak 100 mg/kgBB	CmC Na	-,0695000*	,0078581	,000	-,085892	-,053108
	Na diklofenak 4,5 mg/kgBB	,0190000*	,0078581	,025	,002608	,035392
	Ekstrak 150 mg/kgBB	,0160000	,0078581	,055	-,000392	,032392
	Ekstrak 200 mg/kgBB	,0345000*	,0078581	,000	,018108	,050892
Ekstrak 150 mg/kgBB	CmC Na	-,0855000*	,0078581	,000	-,101892	-,069108
	Na diklofenak 4,5 mg/kgBB	,0030000	,0078581	,707	-,013392	,019392
	Ekstrak 100 mg/kgBB	-,0160000	,0078581	,055	-,032392	,000392
	Ekstrak 200 mg/kgBB	,0185000*	,0078581	,029	,002108	,034892
Ekstrak 200 mg/kgBB	CmC Na	-,1040000*	,0078581	,000	-,120392	-,087608
	Na diklofenak 4,5 mg/kgBB	-,0155000	,0078581	,063	-,031892	,000892
	Ekstrak 100 mg/kgBB	-,0345000*	,0078581	,000	-,050892	-,018108
	Ekstrak 150 mg/kgBB	-,0185000*	,0078581	,029	-,034892	-,002108

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

2. Data % DAI

Uji *Shapiro wilk*

Kriteria uji :

Sig. < 0,05 berarti Ho ditolak

Sig. > 0,05 Ho diterima

Hasil :

		Tests of Normality					
		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	kelompok	Statistic	df	Sig.	Statistic	df	Sig.
Hasil	Na diklofenak 4,5 mg/kgBB	,216	5	,200 [*]	,969	5	,871
	Ekstrak 100 mg/kgBB	,221	5	,200 [*]	,947	5	,714
	Ekstrak 150 mg/kgBB	,203	5	,200 [*]	,920	5	,533
	Ekstrak 200 mg/kgBB	,224	5	,200 [*]	,962	5	,820

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

a. Lilliefors Significance Correction

Kesimpulan : Sig. > 0,05 maka data persentase dayaantiinflamasi terdistribusi normal.

Uji *Levene*

Kriteria uji :

Sig. < 0,05 berarti Ho ditolak

Sig. > 0,05 Ho diterima

Hasil :

Test of Homogeneity of Variances

hasil

Levene Statistic	df1	df2	Sig.
2,106	3	16	,140

Kesimpulan : Sig. > 0,05 maka data Persentase DAI homogen.

Uji *One Way* ANOVA

Kriteria uji :

Sig. < 0,05 berarti Ho ditolak

Sig. > 0,05 Ho diterima

Hasil :

ANOVA

hasil

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	697,644	3	232,548	4,681	,016
Within Groups	794,826	16	49,677		
Total	1492,470	19			

Kesimpulan : Sig. < 0,05 maka Ho ditolak. Terdapat perbedaan data Persentase DAI antar kelompok perlakuan.

Uji LSD**Kriteria uji :**

Sig. < 0,05 berarti Ho ditolak

Sig. > 0,05 Ho diterima

Hasil :**Multiple Comparisons**

Dependent Variable: hasil

LSD

(I) kelompok	(J) kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Na diklofenak 4,5 mg/kgBB	Ekstrak 100 mg/kgBB	9,31200	4,45765	,053	-,1378	18,7618
	Ekstrak 150 mg/kgBB	1,59800	4,45765	,725	-7,8518	11,0478
	Ekstrak 200 mg/kgBB	-7,31400	4,45765	,120	-16,7638	2,1358
Ekstrak 100 mg/kgBB	Na diklofenak 4,5 mg/kgBB	-9,31200	4,45765	,053	-18,7618	,1378
	Ekstrak 150 mg/kgBB	-7,71400	4,45765	,103	-17,1638	1,7358
	Ekstrak 200 mg/kgBB	-16,62600*	4,45765	,002	-26,0758	-7,1762
Ekstrak 150 mg/kgBB	Na diklofenak 4,5 mg/kgBB	-1,59800	4,45765	,725	-11,0478	7,8518
	Ekstrak 100 mg/kgBB	7,71400	4,45765	,103	-1,7358	17,1638
	Ekstrak 200 mg/kgBB	-8,91200	4,45765	,063	-18,3618	,5378
Ekstrak 200 mg/kgBB	Na diklofenak 4,5 mg/kgBB	7,31400	4,45765	,120	-2,1358	16,7638
	Ekstrak 100 mg/kgBB	16,62600*	4,45765	,002	7,1762	26,0758
	Ekstrak 150 mg/kgBB	8,91200	4,45765	,063	-,5378	18,3618

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