LAMPIRAN

Lampiran 1. Determinasi seledri

PEMERINTAH PROVINSI JAWA TIMUR
DINAS KESEHATAN
UPT LABORATORIUM HERBAL
MATERIA MEDICA BATU
Jl. Lahor 87 Kota Batu
Jl. Raya 228 Kejayan Kabupaten Pasuruan
Jl. Kolonel Sugiono 457 – 459 Kota Malang
Email : materiamedicabatu@jatimprov.go.id

Nomor : 074/ 230/ 102.20-A/ 2022
Sifat : Biasa
Perihal : **Determinasi Tanaman Seledri**

Memenuhi permohonan saudara :

Nama : ADIFA DWI PERMATA
NIM : 24185459A
Fakultas : FARMASI, UNIVERSITAS SETIA BUDI

1. Perihal determinasi tanaman seledri
   - Kingdom : Plantae (Tumbuhan)
   - Divisi : Magnoliophyta (Tumbuhan berbunga)
   - Kelas : Dicotyledonae
   - Bangsa : Apiales/ Umbbelliflorae
   - Suku : Apiaceae/ Umbelliferae
   - Marga : Apium
   - Jenis : *Apium graveolens* L.
   - Sinonim : Seledri (Indonesia); Sledri (Jawa), Saledri (Sunda)
   - Kunci Determinasi : 1b-2b-3b-4b-6b-7b-9b-10b-11b-12b-13b-14a-15a-109a-110b-111b-112a-113a-114b-115a:Umbelliferae-1a-2a-3b-4b-6b-7a-8b-10b:Apium-1b:*A.graveolens*.
2. Morfologi : Habitus: Semak, tinggi ± 50 cm. Batang: Tidak berkayu, bersegi, beralur, beruas, bercabang, tegak, hijau pucat. Daun: Majemuk, menyirip ganjil, anak daun 3-7 helai, pangkal dan ujung runcing, tepi beringgit, panjang 2-7,5 cm, lebar 2-5 cm, pertulangan menyirip, tangkai 1-2,7 cm, hijau keputih-putihan, hijau. Bunga: Majemuk, bentuk payung, tangkai 2 cm, delapan sampai dua belas, tangkai kelopak 2,5 cm, hijau, benang sari lima, berlepasan, berseling dengan mahkota, ujung runcing, mahkota berbagi lima, bagian pangkal berlekatan, putih. Buah: Kotak, bentuk kerucut, panjang 1-1,5 mm, hijau kekuningan. Akar: Tunggang, putih kotor.
3. Bagian yang digunakan : Daun dan batang.
4. Penggunaan : Penelitian (Skripsi).
5. Daftar Pustaka
   - Backer, C.A dan Bakhuizen Van Den Brink, R.C. 1965. *Flora of Java (Spermathopytes only) Vol. II.* Wolters-Noordhoff NV, Groningen, the Netherlands.
   - Van Steenis, CGGJ. 2008. *FLORA: untuk Sekolah di Indonesia.* Pradnya Paramita, Jakarta.

Demikian surat keterangan determinasi ini kami buat untuk dipergunakan sebagaimana mestinya.

Batu, 28 Maret 2022

KEPALA UPT LABORATORIUM HERBAL
MATERIA MEDICA BATU

ACHMAD MABRUR, SKM, M.Kes.
PEMBINA
NIP. 19680203 199203 1 004

Lampiran 2. Surat *ethical clearance*

3/30/22, 11:44 AM KEPK-RSDM

HEALTH RESEARCH ETHICS COMITTE
KOMISI ETIK PENELITIAN KESEHATAN

Dr. Moewardi General Hospital
RSUD Dr. Moewardi

ETHICAL CLEARANCE
KELAIKAN ETIK

Nomor : 411 / III / HREC / 2022

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 AKTIVITAS FRAKSI POLAR, SEMI POLAR, DAN NON POLAR SELEDRI (Aplum graveolens. L) TERHADAP PENURUNAN KOLESTEROL TOTAL DARAH PADA TIKUS PUTIH JANTAN DENGAN PEMERIKSAAN ENZIMATIK CHOD-PAP

Principal investigator : Adifa Dwi Permata
Peneliti Utama 24185459A

Location of research : Universitas Setia Budi
Lokasi Tempat Penelitian

Is ethically approved
Dinyatakan layak etik

Issued on : 30 Maret 2022

Chairman
Ketua

Dr. Wahyu Dwi Armoko, Sp.F
19770224 201001 1 004

https://komisi-etika.rsmoewardi.com/kepk/ethicalclearance/24185459A-0820

Lampiran 3. Surat hewan uji

"ABIMANYU FARM"

√ Mencit putih jantan √ Tikus Wistar √ Swis Webster √ Cacing
√ Mencit Balb/C √ Kelinci New Zealand

Ngampon RT 04 / RW 04. Mojosongo Kec. Jebres Surakarta. Phone 085 629 994 33 / Lab USB Ska

Yang bertanda tangan di bawah ini:
Nama : Sigit Pramono

Selaku pengelola Abimanyu Farm, menerangkan bahwa hewan uji yang digunakan untuk penelitian, oleh:

Nama	: Adifa Dwi Permata
Nim	: 24185459A
Institusi	: Universitas Setia Budi Surakarta

Merupakan hewan uji dengan spesifikasi sebagai berikut:

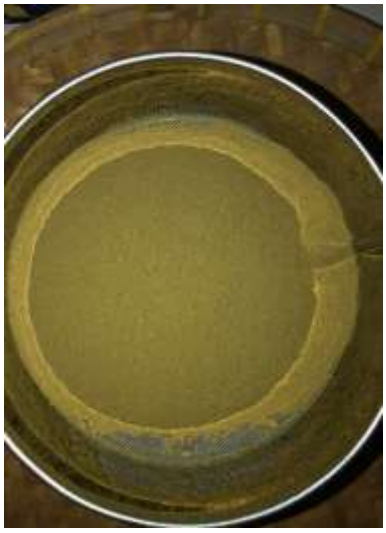
Jenis hewan	: Tikus Wistar
Umur	: 2-3 bulan
Jenis kelamin	: Jantan
Jumlah	: 25 ekor
Keterangan	: Sehat
Asal-usul	: Unit Pengembangan Hewan Percobaan UGM Yogyakarta

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

Surakarta, 14 Juni 2022
Hormat kami

Sigit Pramono
"ABIMANYU FARM"

Lampiran 4. Tanaman seledri, serbuk, dan ekstrak



Lampiran 5. Alat dan bahan

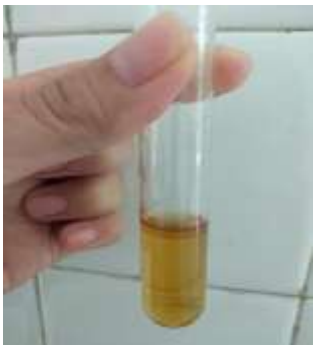
Bahan

Lampiran 6. Foto hewan uji, pengambilan darah, dan induksi

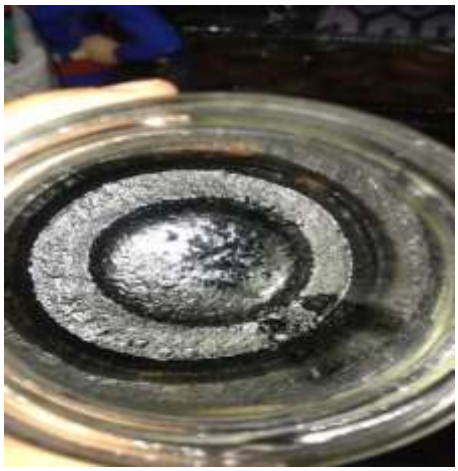
Lampiran 7. Hasil identifikasi fraksi seledri











Lampiran 8. Foto uji kadar air

Lampiran 9. susut pengeringan

Lampiran 10. Perhitungan rendemen seledri

1. Hasil rendemen seledri kering terhadap basah

Berat basah (kg)	Berat kering (kg)	Rendemen b/b
1,2	1,0	24%

$$\%\text{rendemen} = \frac{Bobot\ kering}{bobot\ basah} \text{ x } 100\%$$

$$= \frac{1000\ gram}{1200\ gram}\ x\ 100\%$$

$$= 83{,}33\%$$

2. Rendemen ekstrak etanol terhadap serbuk kering

	Berat serbuk (g)	Volume etanol (ml)	Berat ekstrak (g)	Rendemen %
Sokletasi	360g	3800	97	26,94

$$\%\text{rendemen} = \frac{berat\ ekstrak}{berat\ serbuk}\ x\ 100\%$$

$$= \frac{97\ gram}{360\ gram}\ x\ 100\ \%$$

$$= 26{,}94\ \%$$

Lampiran 11. Perhitungan susut pengeringan

Hasil penetapan susut pengeringam seldri

No	Berat serbuk (g)	ısut pengeringan (%)
1	2,00	8,5
2	2,00	9,5
3	2,00	9,5
	Rata-rata±SD	8,8±0,5

Rata-rata susut pengeringan serbuk seledri = $\frac{8,5\%+9,5\%+9,5\%}{3}$

= 9,16%

Lampiran 12. Perhitungan kadar air

Persentase penetapan kadar air serbuk seledri

	Serbuk seledri (g)	Pelarut xylen (ml)	Kandungan air	Kadar %
Replikasi I	20	100	1,2	6
Reolikasi II	20	100	1,3	6,5
Replikasi III	20	100	1,2	6
Rata-rata±SD	20	100	1,3±0,05	6,1±0,28

$$\% \text{ kadar} = \frac{volume\ air}{berat\ awal}\ x\ 100\ \%$$

Replikasi 1

$$\% \text{ kadar} = \frac{1,2}{20}\ x\ 100\%$$

$$= 6\%$$

Replikasi 2

$$\% \text{ kadar} = \frac{1,3}{20}\ x\ 100\%$$

$$= 6,5\ \%$$

Replikasi 3

$$\% \text{ kadar} = \frac{1,2}{20}\ x\ 100\%$$

$$= 6\%$$

$$\text{Rata-rata kadar air serbuk seledri} = \frac{9\%+9,5\%+9\%}{3}$$

$$= 9,1\%$$

Lampiran 13. Hasil penimbangan berat badan tikus

tikus	berat badan (g)				
	hari ke-0	**hari ke-7**	**hari ke-14**	**hari ke-21**	**hari ke-28**
1	162	164	178	188	194
2	171	179	184	190	199
3	167	172	179	186	195
4	177	180	186	191	198
5	168	172	180	193	199
	169	**173,4**	**181,4**	**189,6**	**197**
1	177	185	188	192	196
2	174	180	186	191	193
3	159	167	178	186	191
4	160	164	177	185	192
5	178	180	186	197	205
	169,6	**175,2**	**183**	**190,2**	**195,4**
1	163	165	170	174	180
2	178	180	187	192	196
3	173	180	191	199	203
4	170	175	182	188	192
5	172	178	185	189	193
	171,2	**175,6**	**183**	**188,4**	**192,8**
1	172	172	180	186	192
2	178	179	188	194	200
3	188	190	196	203	206
4	161	164	173	180	187
5	170	172	180	188	195
	173,8	**175,4**	**183,4**	**190,2**	**196**
1	162	163	173	185	196
2	178	180	186	192	200
3	184	187	193	198	203
4	173	175	182	190	193
5	176	177	183	191	199
	174,6	**176,4**	**183,4**	**191,2**	**198,2**

Lampiran 14. Perhitungan dosis dan penimbangan larutan stok.

1. **Induksi diet tinggi lemak**

   Pakan diet tinggi lemak diberikan secara oral yang berupa campuran kuning telur puyuh, minyak babi dan pakan BR II yang diolah dan di oven. Cara pemeberian pakan tersebut berdasarkan dengan tingkat resiko kematian tikus, maka dipilih melalui campuran pakan, telurpuyuh sebnayak 2,5 kg dan diambil hanya bagian kuning telur, 2,5kg pakan BR II, dan 1,5 L minyak babi.

2. **Induksi PTU (Prophyltiourasil)**

   Induksi PTU diberikan selama 14 hari pada seluruh kelompok.

   Dosis pemberian PTU yang disarankan adalah 0,01%/g/1000ml air. Dosis PTU untuk manusia adalah 100mg, maka :

   $$\frac{0{,}01\ g}{100\ ml}\ X = \frac{0{,}01\ g\ PTU}{X}$$

   0,01 X= 10 ml

   X= 1000 ml

   Maka, dosis 0,01% dilakukan dengan cara PTU 100 mg dilarutkan dalam 1000ml air

3. **Kontrol negatif**

   Pembuatan CMC Na 0,5%

   CMC Na = $\frac{0{,}5\ g}{100\ ml} = \frac{500\ mg}{100\ ml}$ =5mg/ml

   Cara pembuatan :

   0,5 gram serbuk CMC Na ditimbang kemudian dilarutkan air panas ad 100 ml.

   Dosis CMC Na 500 mg/70 kg BB manusia

   Konversi ke tikus = 500 mg x 0,018

   = 9 mg/200 g BB

   Volume pemberian = $\frac{9\ mg}{500\ mg}\ x\ 100\ ml = 0{,}9ml$

4. **Kontrol positif (Simvastatin)**

   Simvastatin pada manusia adalah 10 mg/70 kg BBmanusia , konversi ke tkus 200 g adalah 0,018

   Dosis = 10 mg x 0,018

   = 0,18 mg/200 g BB tikus

   Dosis simvastatin 10 mg kemudian dikonversikan ke manusia yang berat 70 kg ke tikus dengan bb 200 g yaitu 0,018

Dosis pemberian = 10 mg x 0,018

= 0,18 mg/200 g BB tikus

= 0,9 mg/kg BB tikus

Volume pemberian = $\frac{0{,}18\ mg}{500\ mg}\ x\ 100ml = 0{,}036\ ml$

Penimbangan :

1 tablet simvastatin terdapat 10 mg zat aktif, bobot tablet setelah ditimbang yaitu 130 mg (pertablet)

10 mg = 1 tablet

20 mg = (x) tablet

X = $\frac{20\ mg}{10\ mg}$ = 2 tablet

Maka 2 tablet simvastatin dilarutkan pada suspense CMC Na 100 ml.

Minggu 1	- Tikus bb 192 g = $\frac{192}{200g} x\ 0{,}18\ mg$ = 3,96mg/ 192 g BB tikus VP = 3,96mg/ 10 mg x 1 ml = 0,39 ml/192 g BB tikus - Tikus bb 191 g = $\frac{191}{200g} x\ 0{,}18\ mg$ =3,94 mg / 191 g BB tikus VP = 3,94mg /10 mg x 1ml =0,39 ml/191 g BB tikus - Tikus bb 186 g = $\frac{186g}{200g} x\ 0{,}18\ mg$ =3,83 mg /186 g BB tikus VP =3,83mg/10 mg x 1 ml =0,38 ml/186 g BB tikus - Tikus bb 185 g = $\frac{185g}{200g} x\ 0{,}18\ mg$ =3,81 mg /185 g BB tikus VP = 3,81mg/10mg x 1ml = 0,38 ml/185 g BB tikus - Tikus bb 197 g = $\frac{197g}{200g} x\ 0{,}18\ mg$ = 4,07 mg /197 g BB tikus VP = 4,07mg/10mg x 1ml = 0,40 ml/197 g BB tikus
Minggu 2	- Tikus bb 196 = $\frac{196}{200g} x\ 0{,}18\ mg$ = 4,05 mg/196 g BB tikus VP = 4,05mg/10mg x 1ml = 0,40 ml/196 g BB tikus - Tikus bb 193 g = $\frac{193g}{200g} x\ 0{,}18\ mg$ =3,98 mg/ 193 g BB tikus VP = 3,98 mg/10mg x 1ml =0,39ml/193 g BB tikus - Tikus bb 191 g = $\frac{191g}{200g} x\ 0{,}18\ mg$ = 3,94 mg/191 g BB tikus VP = 3,94mg/10mg x 1ml = 0,394 ml/191 g BB tikus - Tikus bb 192 g = $\frac{192g}{200g} x\ 0{,}18\ mg$ = 3,96 mg / 192 g BB tikus VP = 3,96mg/10mg x 1ml =0,396ml/192 g BB tikus - Tikus bb 205 g = $\frac{205g}{200g} x\ 0{,}18\ mg$ = 4,23 mg/205 g BB tikus VP = 4,23mg/10mg x1ml = 0,42 ml/205 g BB tikus

5. Perhitungan rendemen dan dosis fraksi seledri

Berdasarkan penelitian yang telah dilakukan sebelumnya dosis ektrak seledri yang efektif menurunkan kadar kolesteroltotal darah adalah 125mg/kg BB, maka agar mendapatkan dosis fraksi dilakukan perhitungan :

a. Fraksi n-heksan

Rendemen fraksi = $\frac{fraksi\ yang\ diperoleh}{ekstrak\ yang\ diperoleh} x\ 100\%$

= $\frac{2,7\ g}{80} x\ 100\%$

= 3,375 %

Dosis fraksi = rendemen fraksi x dosis efektif

= $\frac{3,375g}{100}\ x\ 125\ \frac{mg}{kg}\ bb$ = 4,128 mg/kg bb

Minggu 1	- Tikus bb 174g = $\frac{174g}{200\ g} x\ \ 4,128mg$ = 3,59 mg/ 174 g BB tikus VP = 3,59mg/10mg x 1ml = 0,35ml/174 g BB tikus - Tikus bb 192g = $\frac{192g}{200\ g} x\ \ 4,128mg =$ 3,96 mg/192 g BB tikus VP = 3,96mg/10mg x1ml= 0,39ml/192 g BB tikus - Tikus bb 199 g = $\frac{199g}{200\ g} x\ \ 4,128mg$ = 4,11 mg/199 g BB tikus VP =4,11mg/10mg x 1 ml =0,41ml/199g BB tikus - Tikus bb 188 g = $\frac{188g}{200g} x\ 4,128\ \ mg$ = 3,88 mg /188 g BB tikus VP = 3,88mg/10mg x 1ml =0,38ml/188 g BB tikus - Tikus bb 189 g = $\frac{189\ g}{200\ g} x\ 4,128\ mg$ =3,90 mg/189 g BB tikus VP =3,90mg/10mg x 1ml=0,39 ml/189 g BB tikus
nggu 2	- Tikus bb 180 g = $\frac{180\ g}{200\ g} x 4,128\ \ mg$ = 3,72 mg/180 g BB tikus

	VP =3,72mg/10 x 1ml =0,37 ml /180 g BB tikus - Tikus bb 196 g = $\frac{196\ g}{200\ g} x\ 4{,}128 mg = 4{,}05$ mg/196 g BB tikus VP = 4,05mg/10mg x 1ml = 0,40 ml/196 g BB tikus - Tikus bb 203 g = $\frac{203\ g}{200\ g} x\ 4{,}128\ mg$ = 4,19 mg/203 g BB tikus VP = 4,19mg/10mg x 1ml = 0,41 ml/203 g BB tikus - Tikus bb 192g = $\frac{192\ g}{200\ g} x\ 4{,}128 mg$ =3,96 mg/192 g BB tikus VP = 3,96 mg/10mg x 1ml= 0,39ml/192 g BB tikus - Tikus bb 193 g = $\frac{193 g}{200\ g} x 4{,}128\ mg$ = 3,98 mg/193 g BB tikus VP = 3,98mg/10mg x 1ml =0,39ml/193 g BB tikus

b. Fraksi etil asetat

Rendemen fraksi = $\frac{fraksi\ yang\ diperoleh}{ekstrak\ yang\ diperoleh} x\ 100\%$

= $\frac{24\ g}{80} x\ 100\%$

= 30 %

Dosis fraksi = rendemen fraksi x dosis efektif

= $\frac{30}{100}\ x\ 125 \frac{mg}{kg} bb$ = 37,5 mg/kg bb

Minggu 1	- Tikus bb 186 g = $\frac{186g}{200\,g} x$ 37,5 mg = 3,84 mg/186 g BB tikus VP =3,84/10mg x 1ml = 0,38ml/186g BB tikus - Tikus bb 194g = $\frac{194g}{200\,g} x$ 37,5 mg =4,00mg/194 g BB tikus VP = 4,00/10mg x 1 ml = 0,4ml/194 g BB tikus - Tikus bb 203 g = $\frac{203g}{200\,g} x$ 37,5 mg = 4,19 mg/203 g BB tikus VP =4,19/10mg x 1 ml = 0,4ml/203 g BB tikus - Tikus bb 180 g = $\frac{180g}{200\,g} x$ 37,5 mg = 3,72 mg/180 g BB tikus VP =3,72/10mg x 1 ml =0,37ml/180 g BB tikus - Tikus bb 188 g = $\frac{188g}{200\,g} x$ 37,5mg= 3,88 mg/188 g BB tikus VP = 3,88 /10 mg x 1 ml = 0,38ml/188 g BB tikus
Minggu 2	- Tikus bb 192g =$\frac{192g}{200\,g} x$ 37,5 mg = 3,96 mg/192 g BB tikus VP =3,96/10mg x 1ml =0,39ml/192 g BBtikus - Tikus bb 200 g = $\frac{200g}{200\,g} x$ 37,5 mg =4,13 mg/200 g BB tikus VP = 4.13/10mg x 1 ml= 0,4 ml/200 g BB tikus - Tikus bb 206 g = $\frac{206g}{200\,g} x$ 37,5 mg = 4,25 mg/206 g BB tikus VP = 4,25/10mg x1 ml= 0,42 ml/206 g BB tikus - Tikus bb 187 g = $\frac{187g}{200\,g} x$ 37,5 mg=3,86 mg/187 g BB tikus VP =3,86/10mg x 1ml =0,38ml/187 g BB tikus - Tikus bb 195 g = $\frac{195g}{200\,g} x$ 37,5mg = 4,02 mg/195 g BB tikus VP =4,02/10mg x 1ml =0,4 ml/195 g BB tikus

c. Fraksi air

Rendemen fraksi = $\frac{fraksi\ yang\ diperoleh}{ekstrak\ yang\ diperoleh} x\ 100\%$

= $\frac{48\,g}{80} x\ 100\%$

= 60 %

Dosis fraksi = rendemen fraksi x dosis efektif

= $\frac{60}{100}\ x\ 125 \frac{mg}{kg} bb$ = 75 mg/kg bb

Minggu 1	- Tikus bb 185 g = $\frac{185\ g}{200\ g} x\ 75\ mg$ = 3,82 mg/185 g BB tikus VP =3,82/10 mg x 1ml = 0,3ml/185 g BB tikus - Tikus bb 192 g = $\frac{192\ g}{200\ g} x\ 75\ mg$ = 3,96 mg/192 g BB tikus VP = 3,96/10mg x 1ml =0,3ml/192 g BB tikus - Tikus bb 198 g = $\frac{198\ g}{200\ g} x\ 75\ mg$ = 4,09 mg/198 g BB tikus VP = 4,09/10mg x 1ml = 0,4ml/198 g BB tikus - Tikus bb 190 g = $\frac{190g}{200\ g} x\ 175\ mg$ =3,92 mg/190 g BB tikus VP = 3,92/10mg x 1 ml =0,3ml/190 g BB tikus - Tikus bb 190 g = $\frac{190g}{200\ g} x\ 75\ mg$ = 3,94 mg/190 g BB tikus VP = 3,94/10mg x 1ml = 0,3ml/190 g BB tikus
Minggu 2	- Tikus bb 196 g = $\frac{196\ g}{200\ g} x\ 75\ mg$ = 4,05 mg/196 g BB tikus VP =4,05 /10mg x 1ml = 0,4ml /196 g BB tikus - Tikus bb 200 g = $\frac{200\ g}{100\ g} x\ 75\ mg$ =4,13 mg/200 g BB tikus VP = 4,13/10mg x 1ml = 0,4ml/200 g BB tikus - Tikus bb 203 g = $\frac{203\ g}{200\ g} x\ 75\ mg$ = 4,19 mg/203 g BB tikus VP =4,19/10mg x 1ml = 0,4ml/203 g BB tikus - Tikus bb 193 g = $\frac{193g}{200\ g} x\ 75\ mg$ = 3,98 mg/193 g BB tikus VP = 3,98/10mg x 1ml = 0,3ml/193 g BB tikus - Tikus bb 199 g = $\frac{199\ g}{200\ g} x\ 75\ mg$ = 4,11 mg/199 g BB tikus VP = 4,11/10mg x 1ml = 0,4 ml/199 g BB tikus

Lampiran 15. Hasil uji parameter kadar kolesterol total darah hewan uji T0,T1, dan T2.

kadar kolesterol					
kelompok	T0	T1	T2	T1-T0	T1-T2
I kontrol negatif	85	212	195	127	17
	90	220	200	130	20
	88	210	187	122	23
	78	215	198	137	17
	86	229	215	143	14
rata-rata	85	217	199	132	18
SD	4,560702	7,596052	10,22252	8,288546	3,420526
II kontrol positif	82	197	98	115	99
	90	170	102	80	68
	86	186	110	100	76
	106	162	120	56	42
	85	153	93	68	60
rata-rata	90	174	105	84	69
SD	9,330166	17,7633	10,62073	23,64523	20,91734
III fraksi non polar	134	162	150	28	12
	94	191	98	97	93
	96	182	86	86	96
	99	156	124	57	32
	107	168	133	62	35
rata-rata	106	172	118	66	54
SD	16,34726	14,49626	26,02307	26,93626	38,48951
IV fraksi semi polar	90	163	142	74	21
	85	151	109	66	42
	98	125	110	27	15
	100	127	110	27	17
	112	132	120	20	12
rata-rata	97	140	118	43	21
SD	10,43072	16,63731	14,04279	24,999	11,9708
V fraksi polar	92	170	106	78	64
	89	189	100	100	89
	116	162	118	46	44
	123	162	132	39	30
	131	141	130	10	11
rata-rata	110	165	117	54	48
SD	18,70797	17,30729	14,1845	35,06469	30,25869

Lampiran 16. Hasil uji statistic kadar kolesterol total T0, T1, dan T2

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	kelompok	N	Percent	N	Percent	N	Percent
T0	kontrol negatif	5	100.0%	0	0.0%	5	100.0%
	kontrol positif	5	100.0%	0	0.0%	5	100.0%
	fraksi non polar	5	100.0%	0	0.0%	5	100.0%
	fraksi semi polar	5	100.0%	0	0.0%	5	100.0%
	fraksi polar	5	100.0%	0	0.0%	5	100.0%
T1	kontrol negatif	5	100.0%	0	0.0%	5	100.0%
	kontrol positif	5	100.0%	0	0.0%	5	100.0%
	fraksi non polar	5	100.0%	0	0.0%	5	100.0%
	fraksi semi polar	5	100.0%	0	0.0%	5	100.0%
	fraksi polar	5	100.0%	0	0.0%	5	100.0%
T2	kontrol negatif	5	100.0%	0	0.0%	5	100.0%
	kontrol positif	5	100.0%	0	0.0%	5	100.0%
	fraksi non polar	5	100.0%	0	0.0%	5	100.0%
	fraksi semi polar	5	100.0%	0	0.0%	5	100.0%
	fraksi polar	5	100.0%	0	0.0%	5	100.0%

Descriptives

	Kelompok			Statistic	Std. Error
T0	kontrol negatif	Mean		85.4000	2.03961
		95% Confidence Interval for Mean	Lower Bound	79.7371	
			Upper Bound	91.0629	
		5% Trimmed Mean		85.5556	
		Median		86.0000	
		Variance		20.800	
		Std. Deviation		4.56070	
		Minimum		78.00	
		Maximum		90.00	
		Range		12.00	
		Interquartile Range		7.50	
		Skewness		-1.274	.913
		Kurtosis		2.090	2.000
	kontrol positif	Mean		89.8000	4.24735
		95% Confidence Interval for Mean	Lower Bound	78.0075	
			Upper Bound	101.5925	
		5% Trimmed Mean		89.3333	
		Median		86.0000	
		Variance		90.200	
		Std. Deviation		9.49737	
		Minimum		82.00	

		Maximum	106.00	
		Range	24.00	
		Interquartile Range	14.50	
		Skewness	1.757	.913
		Kurtosis	3.264	2.000
	fraksi non polar	Mean	106.0000	7.34166
		95% Confidence Interval for Mean — Lower Bound	85.6163	
		95% Confidence Interval for Mean — Upper Bound	126.3837	
		5% Trimmed Mean	105.1111	
		Median	99.0000	
		Variance	269.500	
		Std. Deviation	16.41646	
		Minimum	94.00	
		Maximum	134.00	
		Range	40.00	
		Interquartile Range	25.50	
		Skewness	1.778	.913
		Kurtosis	3.149	2.000
	fraksi semi polar	Mean	97.0000	4.62601
		95% Confidence Interval for Mean — Lower Bound	84.1561	
		95% Confidence Interval for Mean — Upper Bound	109.8439	
		5% Trimmed Mean	96.8333	
		Median	98.0000	
		Variance	107.000	
		Std. Deviation	10.34408	
		Minimum	85.00	
		Maximum	112.00	
		Range	27.00	
		Interquartile Range	18.50	
		Skewness	.501	.913
		Kurtosis	.062	2.000
	fraksi polar	Mean	110.2000	8.39881
		95% Confidence Interval for Mean — Lower Bound	86.8812	
		95% Confidence Interval for Mean — Upper Bound	133.5188	
		5% Trimmed Mean	110.2222	
		Median	116.0000	
		Variance	352.700	
		Std. Deviation	18.78031	
		Minimum	89.00	
		Maximum	131.00	
		Range	42.00	
		Interquartile Range	36.50	
		Skewness	-.268	.913
		Kurtosis	-2.706	2.000

T1	kontrol negatif	Mean		217.2000	3.39706
		95% Confidence Interval for Mean	Lower Bound	207.7683	
			Upper Bound	226.6317	
		5% Trimmed Mean		216.9444	
		Median		215.0000	
		Variance		57.700	
		Std. Deviation		7.59605	
		Minimum		210.00	
		Maximum		229.00	
		Range		19.00	
		Interquartile Range		13.50	
		Skewness		1.084	.913
		Kurtosis		.595	2.000
	kontrol positif	Mean		173.6000	7.97872
		95% Confidence Interval for Mean	Lower Bound	151.4475	
			Upper Bound	195.7525	
		5% Trimmed Mean		173.4444	
		Median		170.0000	
		Variance		318.300	
		Std. Deviation		17.84096	
		Minimum		153.00	
		Maximum		197.00	
		Range		44.00	
		Interquartile Range		34.00	
		Skewness		.321	.913
		Kurtosis		-1.562	2.000
	fraksi non polar	Mean		171.8000	6.45291
		95% Confidence Interval for Mean	Lower Bound	153.8839	
			Upper Bound	189.7161	
		5% Trimmed Mean		171.6111	
		Median		168.0000	
		Variance		208.200	
		Std. Deviation		14.42914	
		Minimum		156.00	
		Maximum		191.00	
		Range		35.00	
		Interquartile Range		27.50	
		Skewness		.444	.913
		Kurtosis		-1.700	2.000
	fraksi semi polar	Mean		139.6000	7.44043
		95% Confidence Interval for Mean	Lower Bound	118.9421	
			Upper Bound	160.2579	
		5% Trimmed Mean		139.1111	

		Median		132.0000	
		Variance		276.800	
		Std. Deviation		16.63731	
		Minimum		125.00	
		Maximum		163.00	
		Range		38.00	
		Interquartile Range		31.00	
		Skewness		.791	.913
		Kurtosis		-1.626	2.000
	fraksi polar	Mean		164.8000	7.72917
		95% Confidence Interval for Mean	Lower Bound	143.3404	
			Upper Bound	186.2596	
		5% Trimmed Mean		164.7778	
		Median		162.0000	
		Variance		298.700	
		Std. Deviation		17.28294	
		Minimum		141.00	
		Maximum		189.00	
		Range		48.00	
		Interquartile Range		28.00	
		Skewness		.064	.913
		Kurtosis		1.312	2.000
T2	kontrol negatif	Mean		199.0000	4.57165
		95% Confidence Interval for Mean	Lower Bound	186.3071	
			Upper Bound	211.6929	
		5% Trimmed Mean		198.7778	
		Median		198.0000	
		Variance		104.500	
		Std. Deviation		10.22252	
		Minimum		187.00	
		Maximum		215.00	
		Range		28.00	
		Interquartile Range		16.50	
		Skewness		.899	.913
		Kurtosis		1.905	2.000
	kontrol positif	Mean		104.6000	4.74974
		95% Confidence Interval for Mean	Lower Bound	91.4126	
			Upper Bound	117.7874	
		5% Trimmed Mean		104.3889	
		Median		102.0000	
		Variance		112.800	
		Std. Deviation		10.62073	
		Minimum		93.00	

	Maximum		120.00	
	Range		27.00	
	Interquartile Range		19.50	
	Skewness		.676	.913
	Kurtosis		-.421	2.000
fraksi non polar	Mean		118.2000	11.63787
	95% Confidence Interval for Mean	Lower Bound	85.8881	
		Upper Bound	150.5119	
	5% Trimmed Mean		118.2222	
	Median		124.0000	
	Variance		677.200	
	Std. Deviation		26.02307	
	Minimum		86.00	
	Maximum		150.00	
	Range		64.00	
	Interquartile Range		49.50	
	Skewness		-.143	.913
	Kurtosis		-1.695	2.000
fraksi semi polar	Mean		118.2000	6.28013
	95% Confidence Interval for Mean	Lower Bound	100.7636	
		Upper Bound	135.6364	
	5% Trimmed Mean		117.3889	
	Median		110.0000	
	Variance		197.200	
	Std. Deviation		14.04279	
	Minimum		109.00	
	Maximum		142.00	
	Range		33.00	
	Interquartile Range		21.50	
	Skewness		1.746	.913
	Kurtosis		2.835	2.000
fraksi polar	Mean		117.2000	6.34350
	95% Confidence Interval for Mean	Lower Bound	99.5876	
		Upper Bound	134.8124	
	5% Trimmed Mean		117.3333	
	Median		118.0000	
	Variance		201.200	
	Std. Deviation		14.18450	
	Minimum		100.00	
	Maximum		132.00	
	Range		32.00	
	Interquartile Range		28.00	
	Skewness		-.168	.913
	Kurtosis		-2.501	2.000

Tests of Normality

	kelompok	Kolmogorov-Smirnov[a] Statistic	df	Sig.	Shapiro-Wilk Statistic	df	Sig.
T0	kontrol negatif	.265	5	.200*	.910	5	.466
	kontrol positif	.292	5	.191	.816	5	.109
	fraksi non polar	.276	5	.200*	.793	5	.071
	fraksi semi polar	.186	5	.200*	.968	5	.865
	fraksi polar	.234	5	.200*	.888	5	.348
T1	kontrol negatif	.214	5	.200*	.918	5	.520
	kontrol positif	.180	5	.200*	.964	5	.837
	fraksi non polar	.204	5	.200*	.947	5	.719
	fraksi semi polar	.276	5	.200*	.871	5	.269
	fraksi polar	.236	5	.200*	.958	5	.795
T2	kontrol negatif	.261	5	.200*	.939	5	.662
	kontrol positif	.197	5	.200*	.963	5	.827
	fraksi non polar	.188	5	.200*	.960	5	.805
	fraksi semi polar	.320	5	.103	.751	5	.031
	fraksi polar	.217	5	.200*	.910	5	.467

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

a. Lilliefors Significance Correction

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	T0	97.6800	25	15.21710	3.04342
	T1	173.4000	25	29.10183	5.82037
Pair 2	T1	173.4000	25	29.10183	5.82037
	T2	131.4400	25	37.83856	7.56771

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	T0 & T1	25	-.528	.007
Pair 2	T1 & T2	25	.631	.001

Paired Samples Test

	Paired Differences Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper	t	df
T1	-75.72000	39.31764	7.86353	-91.94952	-59.49048	-9.629	24
T2	41.96000	29.82376	5.96475	29.64936	54.27064	7.035	24

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
T0	25	97.6800	15.21710	3.04342
T1	25	173.4000	29.10183	5.82037
T2	25	131.4400	37.83856	7.56771

One-Sample Test

Test Value = 0

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
T0	32.095	24	.000	97.68000	91.3987	103.9613
T1	29.792	24	.000	173.40000	161.3874	185.4126
T2	17.369	24	.000	131.44000	115.8210	147.0590

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
T0	kontrol negatif	5	85.4000	4.56070	2.03961	79.7371	91.0629	78.00	90.00
	kontrol positif	5	89.8000	9.49737	4.24735	78.0075	101.5925	82.00	106.00
	fraksi non polar	5	106.0000	16.41646	7.34166	85.6163	126.3837	94.00	134.00
	fraksi semi polar	5	97.0000	10.34408	4.62601	84.1561	109.8439	85.00	112.00
	fraksi polar	5	110.2000	18.78031	8.39881	86.8812	133.5188	89.00	131.00
	Total	25	97.6800	15.21710	3.04342	91.3987	103.9613	78.00	134.00
T1	kontrol negatif	5	217.2000	7.59605	3.39706	207.7683	226.6317	210.00	229.00
	kontrol positif	5	173.6000	17.84096	7.97872	151.4475	195.7525	153.00	197.00
	fraksi non polar	5	171.8000	14.42914	6.45291	153.8839	189.7161	156.00	191.00
	fraksi semi polar	5	139.6000	16.63731	7.44043	118.9421	160.2579	125.00	163.00
	fraksi polar	5	164.8000	17.28294	7.72917	143.3404	186.2596	141.00	189.00
	Total	25	173.4000	29.10183	5.82037	161.3874	185.4126	125.00	229.00
T2	kontrol negatif	5	199.0000	10.22252	4.57165	186.3071	211.6929	187.00	215.00
	kontrol positif	5	104.6000	10.62073	4.74974	91.4126	117.7874	93.00	120.00
	fraksi non polar	5	118.2000	26.02307	11.63787	85.8881	150.5119	86.00	150.00

	fraksi semi polar	5	118.2000	14.04279	6.28013	100.7636	135.6364	109.00	142.00
	fraksi polar	5	117.2000	14.18450	6.34350	99.5876	134.8124	100.00	132.00
	Total	25	131.4400	37.83856	7.56771	115.8210	147.0590	86.00	215.00

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
T0	2.656	4	20	.063
T1	1.053	4	20	.405
T2	2.510	4	20	.074

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
T0	Between Groups	2196.640	4	549.160	3.268	.032
	Within Groups	3360.800	20	168.040		
	Total	5557.440	24			
T1	Between Groups	15687.200	4	3921.800	16.909	.000
	Within Groups	4638.800	20	231.940		
	Total	20326.000	24			
T2	Between Groups	29190.560	4	7297.640	28.222	.000
	Within Groups	5171.600	20	258.580		
	Total	34362.160	24			