

BAB V

KESIMPULAN DAN SARAN

A. Kesimpulan

Berdasarkan hasil penelitian yang telah dilakukan maka dapat disimpulkan sebagai berikut :

Pertama, ekstrak metanol daun beluntas (*Pluchea indica* Less.) dengan variasi konsentrasi basis gelatin dan HPMC dapat dibuat sebagai sediaan masker gel *peel-off* yang memiliki sifat fisik serta stabilitas yang lebih baik daripada formula lain adalah formula 2.

Kedua, masker gel *peel-off* ekstrak metanol daun beluntas (*Pluchea indica* Less) konsentrasi 10% dengan basis gelatin dan HPMC ygng memiliki aktivitas paling besar yaitu formula 2.

B. Saran

Dari penelitian yang telah dilakukan, disarankan pada peneliti selanjutnya agar didapatkan hasil yang lebih maksimal sebagai berikut :

1. Perlu dilakukan percobaan variasi gelatin dan HPMC dengan perbandingan yang berbeda untuk mendapatkan konsentrasi basis yang lebih optimal.
2. Perlu dilakukan uji aktivitas antioksidan masker gel *peel-off* ekstrak metanol daun beluntas (*Pluchea indica* Less.) menggunakan metode pengujian yang berbeda.

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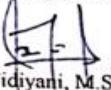
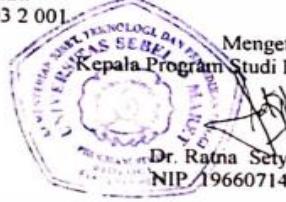
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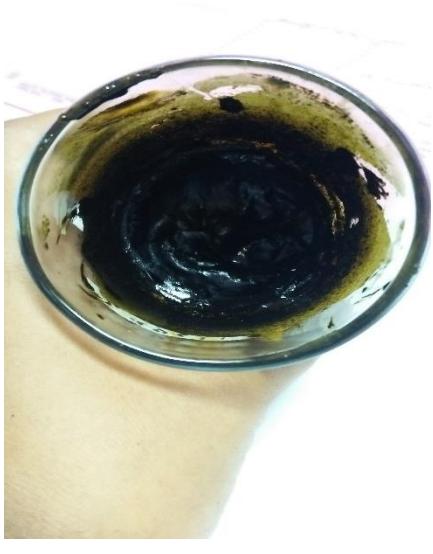
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Lampiran 1. Hasil determinasi tanaman beluntas

 KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI UNIVERSITAS SEBELAS MARET FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM LAB. PROGRAM STUDI BIOLOGI Jl. Ir. Sutami 36A Kentingan Surakarta 57126 Telp. (0271) 663375 Fax (0271) 663375 http://www.biology.mipa.uns.ac.id , E-mail biologi@mipa.uns.ac.id
<p>Nomor : 049/UN27.9.6.4/Lab/2019 H a l : Hasil Determinasi Tumbuhan Lampiran : -</p> <p>Nama Pemesan : Alfia Intan Rahmania NIM : 21154453A Alamat : Program Studi SI Farmasi Fakultas Farmasi Universitas Setia Budi Surakarta</p>
HASIL DETERMINASI TUMBUHAN
<p>Nama Sampel : <i>Pluchea indica</i> (L.) Less. Familia : Asteraceae</p> <p>Hasil Determinasi menurut C.A. Backer & R.C. Bakhuizen van den Brink, Jr. (1963;1965) : 1b-2b-3b-4b-12b-13b-14b-17b-18b-19b-20b-21b-22b-23a _____ 166. Asteraceae 1b-3b-33b-41b-82b-85b-96b-100b-102b-112b-114b-115a _____ 29. <i>Pluchea</i> 1 _____ <i>Pluchea indica</i> (L.) Less.</p>
<p>Deskripsi Tumbuhan : Habitus : perdu, menahun, tumbuh tegak, tinggi 0.5-2 m. Akar : tunggang, bercabang, coklat kotor atau putih kotor atau putih kekuningan. Batang : bulat, berkayu, bercabang banyak, percabangan monopodial, permukaan berambut keriting rapat ketika muda dan gundul ketika dewasa, warna abu-abu. Daun : tunggal, berseling, bentuk oval-ellips atau ellips hingga bulat telur terbalik, panjang 2.5-9 cm, lebar 1-5.5 cm, ujung runcing, tepi bergerigi-bergigi lemah atau kasar, pangkal tumpul hingga membulat, pertulangan daun menyirip, permukaan atas dan bawah daun berwarna hijau muda, berambut cukup rapat, tekstur daun lemas, sangat aromatis terutama ketika diremas; daun penumpu tidak ada; panjang tangkai daun 1-10 mm. Bunga : bongkol (<i>capitulum</i>) kecil yang tersusun dalam bentuk malai rata, terletak di ujung cabang (terminal), dilindungi oleh daun pembalut (<i>involucrum</i>), berkelamin macam-macam, 2-6 bunga terdalam adalah bunga jantan, lainnya bunga betina, duduk atau bertangkai pendek, silindris sempit; daun pembalut (<i>involucrum</i>) bentuk lonceng, tersusun menyirap seperti genting, seringkali menghasilkan kelenjar, warna hijau; dasar bunga (<i>receptaculum</i>) rata, telanjang; kelopak bunga termodifikasi menjadi pappus yang berbentuk seperti bulu berwarna putih dalam 2 lingkaran. Bunga tepi : mahkota bunga berbentuk tabung sempit, bergigi 3-4 pendek; tangkai putik bercabang 2, ungu, menjulang jauh. Bunga tengah : mahkota bunga berbentuk corong, bergigi 5; kepala sari berlekatan, pangkal kepala sari berbentuk anak panah dan ujungnya runcing, ungu, berambut; bakal buah tenggelam. Buah : kering, keras, bersegi 4-5, tepi rata, terdapat rambut kaku, warna coklat hingga hitam. Biji : kecil, warna coklat gelap atau hitam.</p>
Surakarta, 1 Maret 2019
<p>Kepala Lab. Program Studi Biologi  Dr. Tetri Widijani, M.Si. NIP. 19711224 20003 2 001</p> <p>Penanggungjawab Determinasi Tumbuhan  Suratman, S.Si., M.Si. NIP. 19800705 200212 1 002</p> <p>Mengetahui Kepala Program Studi Biologi FMIPA UNS  Dr. Ratna Setyaningsih, M.Si. NIP. 19660714 199903 2 001</p>

Lampiran 2. Tanaman beluntas dan maserasi

Daun beluntas	Serbuk
Moisture balance	Sterling batwell

	
Rotary evaporator	Ekstrak metanol daun beluntas

Lampiran 3. Perhitungan rendemen dan LOD bobot kering terhadap bobot basah daun beluntas

Daun beluntas kering yang diperoleh dari daun beluntas yang masih basah seberat 6160 gram adalah 1050 gram. Rendemen yang didapat sebesar :

$$\% \text{ rendemen kering} = \frac{\text{Berat kering}}{\text{Berat basah}} \times 100\%$$

$$= \frac{6160}{1050} \times 100\%$$

$$= 17,045\%$$

$$\% \text{ LOD} = \frac{\text{Berat Basah} - \text{Berat kering}}{\text{Berat basah}} \times 100\%$$

$$= \frac{6160 - 1050}{1050} \times 100\%$$

$$= 82,95$$

Lampiran 4. Hasil persentase rendemen serbuk halus terhadap daun kering beluntas

Serbuk daun beluntas yang di peroleh dari daun beluntas kering seberat 1050 gram adalah 900 gram. Rendemen yang didapatkan sebesar :

$$\% \text{ rendemen kering} = \frac{\text{Berat kering}}{\text{Berat basah}} \times 100\%$$

$$= \frac{900}{1050} \times 100\%$$

$$= 85.72\%$$

Lampiran 5. Hasil persentase rendemen ekstrak terhadap serbuk halus daun beluntas

Ekstrak daun beluntas yang di peroleh dari serbuk beluntas seberat 850 gram sebanyak 152,95 gram. Rendemen yang didapatkan sebesar:

$$\% \text{ rendemen ekstrak } 1 = \frac{\text{Bobot Ekstrak}}{\text{Berat Serbuk}} \times 100\%$$

$$= \frac{152,95}{850} \times 100\%$$

$$= 17,99\%$$

Lampiran 6. Hasil penetapan kadar air serbuk daun beluntas

No	Bobot Awal (g)	Volume Air (ml)	Kadar Air (%v/b)
1	10	1	10
2	10	0,9	9
3	10	1	10
Rata – rata			9,667 ± 0,577

$$\text{Kadar air}_1 \text{ serbuk} = \frac{\text{volume terbaca (mL)}}{\text{berat serbuk (g)}} \times 100\% = \frac{1 \text{ mL}}{10 \text{ g}} \times 100\%$$

$$= \frac{1 \text{ mL}}{10 \text{ g}} \times 100\%$$

$$= 10 \%$$

$$\text{Kadar air}_2 \text{ serbuk} = \frac{\text{volume terbaca (mL)}}{\text{berat serbuk (g)}} \times 100\% = \frac{0,9 \text{ mL}}{10 \text{ g}} \times 100\%$$

$$= \frac{0,9 \text{ mL}}{10 \text{ g}} \times 100\%$$

$$= 9 \%$$

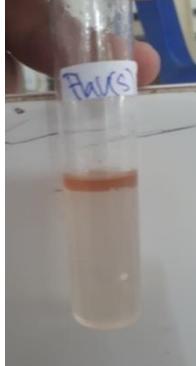
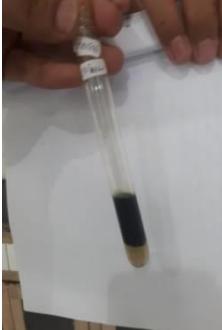
$$\text{Kadar air}_3 \text{ serbuk} = \frac{\text{volume terbaca (mL)}}{\text{berat serbuk (g)}} \times 100\% = \frac{0,9 \text{ mL}}{10 \text{ g}} \times 100\%$$

$$= \frac{0,9 \text{ mL}}{10 \text{ g}} \times 100\%$$

$$= 10 \%$$

$$\text{Rata-rata kadar air serbuk daun beluntas} = \frac{\text{Kadar air}_1 + \text{kadar air}_2 + \text{kadar air}_3}{3} = \frac{10\% + 9\% + 10\%}{3} = 9,667\%$$

Lampiran 7. Foto hasil identifikasi kandungan senyawa dalam serbuk dan ekstrak daun beluntas

Senyawa	Gambar		Hasil	Pustaka
	Serbuk	Ekstrak		
Flavonoid			Cincin merah pada lapisan amil alkohol, positif mengandung flavonoid jenis flavonol.	(DepKes 1995)
Saponin			Menunjukkan adanya busa konstan, Hasil positif saponin	(DepKes 1995)
Steroid			Lapisan atas berwarna hijau kehitaman, positif mengandung steroid	(Marliana et al. 2005)
Tanin			Warnah kehitaman, menunjukkan hasil positif tanin	(Robinso n 1995)

				
Alkaloid	Dragendrof 	Dragendrof 	Tidak ada endapan, hasil negatif.	(Depkes RI 1978)
	Mayer 	Mayer 		
	Boucardad 	Boucardad 		

Lampiran 8. Hasil KLT Ekstrak

Sebelum Penyemprotan			Sesudah Penyemprotan		
Sinar Tampak	UV 254 nm	UV 366 nm	Sinar Tampak	UV 254 nm	UV 366 nm
	 E4 E3 E2 R E1	 E4 E3 E2 R E1		 E4 E3 E2 R E1	 E4 E3 E2 R E1

Keterangan R = Rutin, E =Ekstrak

- Jarak Penotolan ke garis atas elusi (X) : 5,3cm

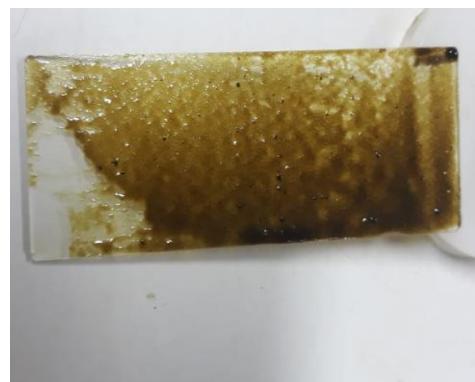
	Jarak penotolan ke bercak (Y)	Rf : $\frac{Y}{X}$
Rutin	R = 2,75 cm	$R = \frac{2,75}{5,3} = 0,52$
Ekstrak	E1 = 2,8 cm E2 = 3,5 cm E3 = 4,1 cm E4 = 4,7 cm	$S1 = \frac{2,8}{5,3} = 0,53$ $S2 = \frac{3,5}{5,3} = 0,66$ $S3 = \frac{4,1}{5,3} = 0,77$ $S4 = \frac{4,7}{5,3} = 0,88$

No	Nama Sampel	Kode Bercak	Rf	Sebelum Penyemprotan			Setelah Penyemprotan		
				Sinar Tampak	UV 254 nm	UV 366 nm	Sinar Tampak	UV 254 nm	UV 366 nm
1	Rutin	R	0,52	Kuning	Meredam	Meredam	Kuning	Meredam	Meredam
2	Ekstrak	E1	0,53	-	Meredam	Meredam	Kuning	Meredam	Meredam
		E2	0,66	-	Meredam	Biru Florens	-	Meredam	Biru Florens
		E4	0,77	-	Meredam	Biru Florens	-	Meredam	Biru Florens

Lampiran 9. Gambar alat uji dan sediaan masker gel *peel-off* ekstrak daun beluntas



Sediaan masker gel *peel-off*



Uji homogenitas



Uji viskositas



Uji pH



Uji daya lekat



Uji daya sebar



Oven



kontrol positif



Uji stabilitas



Uji DPPH



Perubahan warna setelah uji DPPH

Lampiran 10. Data penentuan panjang gelombang maksimum

Spectrum Data Print Report

Wavelength nm.	RawData ...
500.00	0.8686
501.00	0.8773
502.00	0.8865
503.00	0.8951
504.00	0.9034
505.00	0.9110
506.00	0.9181
507.00	0.9245
508.00	0.9304
509.00	0.9357
510.00	0.9404
511.00	0.9447
512.00	0.9478
513.00	0.9500
514.00	0.9513
515.00	0.9520
516.00	0.9521
517.00	0.9514
518.00	0.9501
519.00	0.9481
520.00	0.9452
521.00	0.9417
522.00	0.9374
523.00	0.9324
524.00	0.9269
525.00	0.9207
526.00	0.9138
527.00	0.9067
528.00	0.8989
529.00	0.8910
530.00	0.8824
531.00	0.8735
532.00	0.8645
533.00	0.8555
534.00	0.8462
535.00	0.8377
536.00	0.8290
537.00	0.8197
538.00	0.8103
539.00	0.8000
540.00	0.7897
541.00	0.7795
542.00	0.7691
543.00	0.7585
544.00	0.7481
545.00	0.7372
546.00	0.7271
547.00	0.7171
548.00	0.7072
549.00	0.6981
550.00	0.6892

Panjang gelombang DPPH

Lampiran 11. Data penentuan *operating time*

a. Ekstrak metanol daun beluntas

Kinetics Data Print Report

Time (Minute)	RawData ...
0.000	0.718
1.000	0.710
2.000	0.705
3.000	0.701
4.000	0.695
5.000	0.691
6.000	0.687
7.000	0.682
8.000	0.678
9.000	0.675
10.000	0.671
11.000	0.667
12.000	0.664
13.000	0.660
14.000	0.657
15.000	0.653
16.000	0.651
17.000	0.647
18.000	0.644
19.000	0.641
20.000	0.639
21.000	0.636
22.000	0.634
23.000	0.631
24.000	0.629
25.000	0.626
26.000	0.623
27.000	0.623
28.000	0.620
29.000	0.618
30.000	0.615
31.000	0.613
32.000	0.611
33.000	0.609
34.000	0.607
35.000	0.606
36.000	0.605
37.000	0.603
38.000	0.602
39.000	0.601
40.000	0.599
41.000	0.598
42.000	0.596
43.000	0.594
44.000	0.593
45.000	0.592
46.000	0.590
47.000	0.589
48.000	0.588
49.000	0.586
50.000	0.586

OT 100 - 6,25 ppm

+
50 ppm.

Orientasi 3.

b. Masker gel *peel-off* ekstrak daun beluntas

Kinetics Data Print Report

Time (Minute)	RawData ...
0.0000	0.9197
1.0000	0.9176
2.0000	0.9163
3.0000	0.9174
4.0000	0.9185
5.0000	0.9181
6.0000	0.9191
7.0000	0.9195
8.0000	0.9197
9.0000	0.9205
10.0000	0.9218
11.0000	0.9224
12.0000	0.9230
13.0000	0.9236
14.0000	0.9253
15.0000	0.9263
16.0000	0.9273
17.0000	0.9279
18.0000	0.9290
19.0000	0.9302
20.0000	0.9317
21.0000	0.9315
22.0000	0.9322
23.0000	0.9335
24.0000	0.9350
25.0000	0.9367
26.0000	0.9366
27.0000	0.9375
28.0000	0.9378
29.0000	0.9388
30.0000	0.9397
31.0000	0.9410
32.0000	0.9419
33.0000	0.9435
34.0000	0.9444
35.0000	0.9449
36.0000	0.9457
37.0000	0.9468
38.0000	0.9472
39.0000	0.9487
40.0000	0.9495
41.0000	0.9501
42.0000	0.9525
43.0000	0.9532
44.0000	0.9547
45.0000	0.9556
46.0000	0.9564
47.0000	0.9573
48.0000	0.9583
49.0000	0.9593
50.0000	0.9609

c. Masker gel *peel-off* kontrol pasaran

The screenshot displays a software application window titled "Data Print". The menu bar includes "File", "Edit", "View", "Operations", "Graph", "Instrument", "Tools", and "View". Below the menu is a toolbar with various icons. The main area shows a table with two columns: "Time (Minute)" and "RawData ...". The data is as follows:

Time (Minute)	RawData ...
35.0000	0.9658
36.0000	0.9666
37.0000	0.9683
38.0000	0.9691
39.0000	0.9707
40.0000	0.9717
41.0000	0.9722
42.0000	0.9729
43.0000	0.9745
44.0000	0.9750
45.0000	0.9774
46.0000	0.9774
47.0000	0.9779
48.0000	0.9790
49.0000	0.9815
50.0000	0.9828
51.0000	0.9839
52.0000	0.9846
53.0000	0.9862
54.0000	0.9867
55.0000	0.9886
56.0000	0.9892
57.0000	0.9901
58.0000	0.9919
59.0000	0.9941
60.0000	0.9947

Lampiran 12. Data penimbangan dan pembuatan DPPH

Serbuk DPPH untuk uji aktivitas antioksidan ditimbang sesuai dengan hasil perhitungan berikut:

$$\text{Penimbangan DPPH} = \text{BM DPPH} \times \text{volume larutan} \times \text{molaritas DPPH}$$

$$= 394,32 \text{ g/mol} \times 0,1 \text{ liter} \times 0,0004 \text{ M}$$

$$= 0,01578 \text{ gram} = 15,78 \text{ mg} = 15,8 \text{ mg.}$$

Serbuk DPPH sebanyak 15,8 mg dilarutkan dengan metanol p.a dalam labu takar 100 ml.

Lampiran 13. Data pembuatan larutan stok ekstrak dan formula masker gel *peel-off* ekstrak daun beluntas.

Pembuatan larutan stok ekstrak daun beluntas

Pembuatan larutan stok dilakukan dengan cara ditimbang ekstrak 20 mg dimasukkan kedalam labu takar 100 ml kemudian ditambahkan metanol p.a sampai tanda batas, sehingga diperoleh konsentrasi larutan stok sebesar 200 ppm.

Larutan stok 200 ppm diencerkan menjadi 5 seri pengenceran konsentrasi yaitu 6,25 ppm; 12,5 ppm, 25 ppm; 50 ppm; 100 ppm.

- Konsentrasi 100 ppm

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 = \frac{V_2 \times C_2}{C_1} = \frac{10 \text{ ml} \times 100 \text{ ppm}}{200 \text{ ppm}}$$

$$V_1 = 5 \text{ ml}$$

Dipipet 5 ml larutan ekstrak 200 ppm sebanyak 5 ml dimasukkan dalam labu takar 10 ml kemudian ditambahkan metanol p.a sampai tanda batas.

- Konsentrasi 50 ppm

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 = \frac{V_2 \times C_2}{C_1} = \frac{10 \text{ ml} \times 50 \text{ ppm}}{100 \text{ ppm}}$$

$$V_1 = 5 \text{ ml}$$

Dipipet 5 ml larutan ekstrak 100 ppm sebanyak 5 ml dimasukkan dalam labu takar 10 ml kemudian ditambahkan metanol p.a sampai tanda batas.

- Konsentrasi 25 ppm

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 = \frac{V_2 \times C_2}{C_1} = \frac{10 \text{ ml} \times 25 \text{ ppm}}{50 \text{ ppm}}$$

$$V_1 = 5 \text{ ml}$$

Dipipet 5 ml larutan ekstrak 50 ppm sebanyak 5 ml dimasukkan dalam labu takar 10 ml kemudian ditambahkan metanol p.a sampai tanda batas.

- Konsentrasi 12,5 ppm

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 = \frac{V_2 \times C_2}{C_1} = \frac{10 \text{ ml} \times 12,5 \text{ ppm}}{25 \text{ ppm}}$$

$$V_1 = 5 \text{ ml}$$

Dipipet 5 ml larutan ekstrak 25 ppm sebanyak 5 ml dimasukkan dalam labu takar 10 ml kemudian ditambahkan metanol p.a sampai tanda batas.

- Konsentrasi 6,25 ppm

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 = \frac{V_2 \times C_2}{C_1} = \frac{10 \text{ ml} \times 6,25 \text{ ppm}}{12,5 \text{ ppm}}$$

$$V_1 = 5 \text{ ml}$$

Dipipet 5 ml larutan ekstrak 12,5 ppm sebanyak 5 ml dimasukkan dalam labu takar 10 ml kemudian ditambahkan metanol p.a sampai tanda batas.

Pembuatan larutan stok formula I, II, III, IV, dan V masker gel *peel off* ekstrak beluntas

Pembuatan larutan stok masing-masing formula dengan cara ditimbang masing-masing formula I, II, III, IV, dan V sebanyak 200 mg kemudiaan dimasukkan dalam labu takar 100 ml lalu ditambahkan metanol p.a sampai tanda batas, sehingga masing-masing sediaan diperoleh konsentrasi larutan stok 2000 ppm.

Larutan stok masing-masing formula diencerkan menjadi 5 seri pengenceran konsentrasi, yaitu 62,5 ppm; 125 ppm; 250 ppm; 500 ppm; 1000 ppm.

- Konsentrasi 1000 ppm

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 = \frac{V_2 \times C_2}{C_1} = \frac{10 \text{ ml} \times 1000 \text{ ppm}}{2000 \text{ ppm}}$$

$$V_1 = 5 \text{ ml}$$

Dipipet 5 ml larutan sediaan 2000 ppm sebanyak 5 ml dimasukkan dalam labu takar 10 ml kemudian ditambahkan metanol p.a sampai tanda batas.

- Konsentrasi 500 ppm

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 = \frac{V_2 \times C_2}{C_1} = \frac{10 \text{ ml} \times 500 \text{ ppm}}{1000 \text{ ppm}}$$

$$V_1 = 5 \text{ ml}$$

Dipipet 5 ml larutan sediaan 1000 ppm sebanyak 5 ml dimasukkan dalam labu takar 10 ml kemudian ditambahkan metanol p.a sampai tanda batas.

- Konsentrasi 250 ppm

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 = \frac{V_2 \times C_2}{C_1} = \frac{10 \text{ ml} \times 250 \text{ ppm}}{500 \text{ ppm}}$$

$$V_1 = 5 \text{ ml}$$

Dipipet 5 ml larutan sediaan 500 ppm sebanyak 5 ml dimasukkan dalam labu takar 10 ml kemudian ditambahkan metanol p.a sampai tanda batas.

- Konsentrasi 125 ppm

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 = \frac{V_2 \times C_2}{C_1} = \frac{10 \text{ ml} \times 125 \text{ ppm}}{250 \text{ ppm}}$$

$$V_1 = 5 \text{ ml}$$

Dipipet 5 ml larutan sediaan 250 ppm sebanyak 5 ml dimasukkan dalam labu takar 10 ml kemudian ditambahkan metanol p.a sampai tanda batas.

- Konsentrasi 62,5 ppm

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 = \frac{V_2 \times C_2}{C_1} = \frac{10 \text{ ml} \times 62,5 \text{ ppm}}{125 \text{ ppm}}$$

$$V_1 = 5 \text{ ml}$$

Dipipet 5 ml larutan sediaan 125 ppm sebanyak 5 ml dimasukkan dalam labu takar 10 ml kemudian ditambahkan metanol p.a sampai tanda batas.

Lampiran 14. Aktivitas antioksidan dan IC₅₀

Ekstrak metanol daun beluntas

Replikasi 1

konsentrasi (ppm)	absorbansi	%inhibisi	
6.25	0.812	4.69483	a 0.6421
12.5	0.845	6.62983	b 0.7364
25	0.731	19.22651	r 0.991
50	0.508	43.86740	IC50 67.02594
100	0.243	71.47887	

Replikasi 2

konsentrasi (ppm)	absorbansi	%inhibisi	
6.25	0.901	0.44198	a 2.8545
12.5	0.843	6.85082	b 0.6942
25	0.79	12.70718	r 0.997
50	0.591	34.69613	IC50 67.91343
100	0.312	65.52486	

Replikasi 3

konsentrasi (ppm)	absorbansi	% inihibisi	
6.25	0.804	5.633802	a 2.724
12.5	0.762	10.56338	b 0.6997
25	0.651	23.59154	r 0.997
50	0.537	36.97183	IC50 67.5661
100	0.235	72.41784	

Rata-rata IC₅₀ ekstrak metanol daun beluntas = 67.50182±0.447

Formula I

Replikasi 1

Konsentrasi (ppm)	absorbansi	%inhibisi	
62.5	0.92	8.45771	a 12.371
125	0.833	17.11442	b 0.0184
250	0.82	18.40796	r 0.9437
500	0.758	24.57711	IC50 2045.0543
1000	0.715	28.85572	

Replikasi 2

Konsentrasi (ppm)	absorbansi	%inhibisi	
62.5	0.915	8.95522	a 12.96
125	0.828	17.61194	b 0.0184
250	0.812	19.20398	r 0.9372
500	0.751	25.27363	IC ₅₀ 2013.0435
1000	0.709	29.45273	

Replikasi 3

Konsentrasi (ppm)	absorbansi	% inhibisi	
62.5	0.918	8.65671	a 12.351
125	0.838	16.61691	b 0.0187
250	0.817	18.70646	r 0.9361
500	0.755	24.87562	IC ₅₀ 2013.3155
1000	0.713	29.05472	

Rata-rata IC₅₀ Formulasi I = 1342.4342 ± 18.403 ppm

Formula II

Replikasi 1

Konsentrasi (ppm)	absorbansi	%inhibisi	
62,5	0,891	11,34328	a 1,8118
125	0,887	11,74129	b 0,0619
250	0,853	15,12437	r 0,9585
500	0,788	21,59203	IC ₅₀ 778,4847
1000	0,309	69,25373	

Replikasi 2

Konsentrasi (ppm)	absorbansi	% inhibisi	
62,5	0,69	9,44881	a 10,712
125	0,63	17,32283	b 0,0488
250	0,559	26,64041	r 0,9866
500	0,482	36,74540	IC ₅₀ 805,082
1000	0,32	58,00524	

Replikasi 3

Konsentrasi (ppm)	absorbansi	% inhibisi		
62,5	0,691	9,31758	a	9,509
125	0,64	16,01049	b	0,0523
250	0,561	26,37795	r	0,9912
500	0,484	36,48293	IC50	774,2065
1000	0,3	60,62992		

Rata- rata IC₅₀ formula II = 785,9244 ±16,728 ppm

Formula III

Replikasi 1

Konsentrasi (ppm)	absorbansi	% inhibisi		
62,5	0,873	13,13433	a	12,185
125	0,859	14,52736	b	0,0179
250	0,837	16,71642	r	0,9998
500	0,792	21,19403	IC50	2112,57
1000	0,703	30,04975		

Replikasi 2

Konsentrasi (ppm)	absorbansi	%inhibisi		
62,5	0,865	13,93035	a	12,454
125	0,862	14,22886	b	0,0175
250	0,838	16,61692	r	0,9987
500	0,789	21,49254	IC50	2145,486
1000	0,705	29,85075		

Replikasi 3

Konsentrasi (ppm)	absorbansi	% inhibisi		
62,5	0,867	13,73134	a	12,546
125	0,855	14,92537	b	0,0173
250	0,835	16,91542	r	0,9985
500	0,798	20,59701	IC50	2164,971
1000	0,702	30,14925		

Rata-rata IC₅₀ formula III = 2141,009 ± 26,486 ppm

Formula IV

Replikasi 1

Konsentrasi (ppm)	absorbansi	% inhibisi	
62,5	0,849	15,52239	a 12,686
125	0,829	17,51244	b 0,0396
250	0,792	21,19403	r 0,9973
500	0,662	34,12935	IC50 942,2727
1000	0,484	51,8408	

Replikasi 2

Konsentrasi (ppm)	absorbansi	% inhibisi	
62,5	0,854	15,02488	a 12,703
125	0,827	17,71144	b 0,0392
250	0,787	21,69154	r 0,9986
500	0,668	33,53234	IC50 951,4541
1000	0,488	51,44279	

Replikasi 3

Konsentrasi (ppm)	absorbansi	% inhibisi	
62,5	0,852	15,22388	a 12,935
125	0,826	17,81095	b 0,0392
250	0,783	22,08955	r 0,99869
500	0,665	33,83085	IC50 945,5357
1000	0,486	51,64179	

Rata-rata IC₅₀ formula IV = 946,4208 ± 4,654 ppm

Formula V

Replikasi 1

Konsentrasi (ppm)	absorbansi	%inhibisi	
62,5	0,9	10,44776	a 8,2172
125	0,877	12,73632	b 0,0415
250	0,809	19,50249	r 0,9991
500	0,709	29,45274	IC50 1006,814
1000	0,509	49,35323	

Replikasi 2

Konsentrasi (ppm)	absorbansi	% inhibisi		
62,5	0,898	10,64677	a	8,3002
125	0,875	12,93532	b	0,041
250	0,812	19,20398	r	0,9995
500	0,713	29,05473	IC ₅₀	1017,068
1000	0,512	49,05473		

Replikasi 3

Konsentrasi (ppm)	absorbansi	% inhibisi		
62,5	0,912	9,253731	a	7,9353
125	0,871	13,33333	b	0,0414
250	0,812	19,20398	r	0,9984
500	0,711	29,25373	IC ₅₀	1016,056
1000	0,514	48,85572		

Rata-rata IC₅₀ formula V = 1013,313 ± 5,65 ppm

Kontrol positif

Replikasi 1

Konsentrasi (ppm)	absorbansi	% inhibisi		
62,5	0,882	6,765327	a	7,3027
125	0,865	8,562367	b	0,0071
250	0,858	9,302325	r	0,9658
500	0,835	11,733615	IC ₅₀	6013,704
1000	0,814	13,953488		

Replikasi 2

Konsentrasi (ppm)	absorbansi	%inhibisi		
62,5	0,88	6,976744	a	7,2454
125	0,867	8,35095	b	0,007
250	0,86	9,090909	r	0,9775
500	0,837	11,522198	IC ₅₀	6107,8
1000	0,815	13,847780		

Replikasi 3

Konsentrasi (ppm)	absorbansi	% inhibisi

62,5	0,885	6,448202	a	7,1045
125	0,869	8,139534	b	0,007
250	0,855	9,619450	r	0,96
500	0,84	11,205074	IC ₅₀	6127,929
1000	0,817	13,636363		

Rata-rata IC₅₀ kontrol positif = 6083,144 ± 60,973 ppm

Kontrol negatif

Replikasi 1

Konsentrasi (ppm)	absorbansi	% inhibisi		
62.5	0.893	5.60253	a	6.0826
125	0.881	6.87103	b	0.0048
250	0.869	8.13953	r	0,951
500	0.867	8.35095	IC ₅₀	9149.458
1000	0.844	10.78224		

Replikasi 2

Konsentrasi (ppm)	absorbansi	% inhibisi		
62.5	0.892	5.70824	a	6.1883
125	0.88	6.97674	b	0.0048
250	0.868	8.24524	r	0,952
500	0.866	8.45665	IC ₅₀	9127.4375
1000	0.843	10.88794		

Replikasi 3

Konsentrasi (ppm)	absorbansi	% inhibisi		
62.5	0.892	5.70824	a	6.1002
125	0.88	6.97674	b	0.0048
250	0.87	8.03382	r	0,9598
500	0.868	8.24524	IC ₅₀	9145.7917
1000	0.843	10.88794		

Rata-rata IC₅₀ kontrol negatif = 9140,8958± 11,798566 ppm

Formula	IC ₅₀ (ppm)
Ekstrak	67,50182±0,45
I	1342,4342± 18,40
II	785,9244 ±16,72
III	2141,009 ± 26,49
IV	946,4208 ± 4,65
V	1013,313 ± 5,65
Kontrol negatif	9140,8958± 11,79
Kontrol positif	6083,144 ± 60,97

Lampiran 15. Uji statistik sifat fisik masker gel *peel-off* ekstrak daun beluntas

A. pH

pH					
Replikasi	F I	F II	F III	FIV	FV
1	6.00	7.34	7.76	7.82	7.90
2	7.00	7.30	7.75	7.81	7.88
3	7.26	7.28	7.73	7.82	7.87
Rata-rata	6.75	7.31	7.75	7.82	7.88
SD	0.67	0.03	0.02	0.01	0.02

One-Sample Kolmogorov-Smirnov Test

		pH
N		15
Normal Parameters ^{a,b}	Mean	7.6000
	Std. Deviation	.27803
Most Extreme Differences	Absolute	.280
	Positive	.225
	Negative	-.280
Kolmogorov-Smirnov Z		1.084
Asymp. Sig. (2-tailed)		.190

a. Test distribution is Normal.

b. Calculated from data.

Test of Homogeneity of Variances

pH

Levene Statistic	df1	df2	Sig.
1.804	4	10	.205

ANOVA

pH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.079	4	.270	809.150	.000
Within Groups	.003	10	.000		
Total	1.082	14			

pH						
formula	N	Subset for alpha = 0.05				
		1	2	3	4	5
Tukey HSD ^a	formula 1	3	7.2467			
	formula 2	3		7.3067		
	formula 3	3			7.7467	
	formula 4	3				7.8167
	formula 5	3				7.8833
	Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

B. Viskositas

T0					
Replikasi	FI	FII	FIII	FIV	FV
1	6	600.53	1000.33	1000.76	1500.14
2	7	600.51	1000.21	1000.72	1500.15
3	7	600.56	1000.35	1000.74	1500.12
Rata-rata	7	601	1000	1001	1500
SD	0.58	0.03	0.08	0.02	0.02

One-Sample Kolmogorov-Smirnov Test

		viskositas
N		15
Normal Parameters ^{a,,b}	Mean	821.4000
	Std. Deviation	514.75914
Most Extreme Differences	Absolute	.236
	Positive	.164
	Negative	-.236
Kolmogorov-Smirnov Z		.913
Asymp. Sig. (2-tailed)		.375

a. Test distribution is Normal.

b. Calculated from data.

Test of Homogeneity of Variances

viskositas

Levene Statistic	df1	df2	Sig.
16.000	4	10	.000

Test Statistics^{a,b}

	viskositas
Chi-Square	13.919
df	4
Asymp. Sig.	.008

a. Kruskal Wallis Test

b. Grouping Variable: formula

C. Daya lekat

Daya lekat (detik)					
Replikasi	FI	FII	FIII	FIV	FV
1	1	1	1	2	3
2	1	1	1	2,52	2,55
3	1	1	1	2,78	3,12
Rata-rata	1,00	1,00	1,00	2,43	2,89
SD	0,00	0,00	0,00	0,40	0,30

One-Sample Kolmogorov-Smirnov Test

		dayalekat
N		15
Normal Parameters ^{a,b}	Mean	1,6647
	Std. Deviation	.87623
Most Extreme Differences	Absolute	.376
	Positive	.376
	Negative	-.224
Kolmogorov-Smirnov Z		1,456
Asymp. Sig. (2-tailed)		.029

a. Test distribution is Normal.

b. Calculated from data.

Kruskal-Wallis Test**Test Statistics^{a,b}**

	dayalekat
Chi-Square	13,406
df	4
Asymp. Sig.	.009

a. Kruskal Wallis Test

b. Grouping Variable: formula

D. Daya sebar

Daya sebar (cm)					
Beban 44,6 g					
Replikasi	FI	FII	FIII	FIV	FV
1	6.86	5.2	4.92	4.68	3
2	6.53	5.31	4.87	4.72	2.24
3	6.52	5.24	5.12	4.82	2.39
Rata-rata	6.64	5.25	4.97	4.74	2.54
SD	0.19	0.06	0.13	0.07	0.40
Beban 94.6 g					
Replikasi	FI	FII	FIII	FIV	FV
1	6.93	5.59	5.54	4.85	2.62
2	6.64	5.9	5.52	4.82	2.53
3	6.62	5.6	5.42	4.78	2.63
Rata-rata	6.73	5.70	5.49	4.82	2.59
SD	0.17	0.18	0.06	0.04	0.06
Beban 144.6 g					
Replikasi	FI	FII	FIII	FIV	FV
1	6.97	5.6	5.82	4.9	2.86
2	6.72	5.94	5.76	4.98	2.84
3	6.69	5.68	5.73	5.01	2.83
Rata-rata	6.79	5.74	5.77	4.96	2.84
SD	0.15	0.18	0.05	0.06	0.02
Beban 194.6 g					
Replikasi	FI	FII	FIII	FIV	FV
1	6.98	5.64	6.2	5.21	3.02
2	6.76	6.23	6.17	5.23	2.95
3	6.72	5.72	6.15	5.3	2.92
Rata-rata	6.82	5.86	6.17	5.25	2.96
SD	0.14	0.32	0.03	0.05	0.05

One-Sample Kolmogorov-Smirnov Test

		formula_1	formula_2	formula_3	formula_4	formula_5
N		12	12	12	12	12
Normal Parameters ^{a,b}	Mean	6.7450	5.6375	5.6017	4.9417	2.7358
	Std. Deviation	.15991	.29876	.46185	.20740	.25188
Most Differences	Extreme Absolute	.145	.187	.132	.171	.229
	Positive	.145	.141	.102	.171	.130
	Negative	-.126	-.187	-.132	-.152	-.229
Kolmogorov-Smirnov Z		.504	.647	.459	.591	.794
Asymp. Sig. (2-tailed)		.961	.796	.984	.875	.555

a. Test distribution is Normal.

b. Calculated from data.

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
formula_1	.314	3	8	.815
formula_2	3.827	3	8	.057
formula_3	4.194	3	8	.047
formula_4	.811	3	8	.522
formula_5	9.522	3	8	.005

Friedman Test**Test Statistics^a**

N	12
Chi-Square	45.867
df	4
Asymp. Sig.	.000

a. Friedman Test

Wilcoxon Signed Ranks Test**Test Statistics^b**

	formula_2 - formula_1	formula_3 - formula_1	formula_4 - formula_1	formula_5 - formula_1	formula_3 - formula_2	formula_4 - formula_2	formula_5 - formula_2	formula_4 - formula_3	formula_5 - formula_3	formula_5 - formula_4
Z	-3.061 ^a	-3.061 ^a	-3.059 ^a	-3.062 ^a	-.667 ^a	-3.061 ^a	-3.062 ^a	-3.059 ^a	-3.061 ^a	-3.059 ^a
Asymp. p. Sig. (2-tailed)	.002	.002	.002	.002	.505	.002	.002	.002	.002	.002

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

E. Waktu mengering pada tangan

Waktu mengering (detik)					
Replikasi	FI	FII	FIII	FIV	FV
1	19.85	21.46	24.57	30.85	0
2	19.63	21.83	24.63	30.79	0
3	19.69	21.69	25.52	30.82	0
Rata-rata	19.72	21.66	24.91	30.82	0.00
SD	0.11	0.19	0.53	0.03	0.00

One-Sample Kolmogorov-Smirnov Test

		waktumengering
N		15
Normal Parameters ^{a,b}	Mean	19.4220
	Std. Deviation	10.78223
Most Extreme Differences	Absolute	.308
	Positive	.164
	Negative	-.308
Kolmogorov-Smirnov Z		1.192
Asymp. Sig. (2-tailed)		.117

a. Test distribution is Normal.

b. Calculated from data.

Test of Homogeneity of Variances

Waktumengering

Levene Statistic	df1	df2	Sig.
9.490	4	10	.002

Kruskal-Wallis Test

Test Statistics^{a,b}

	waktumengering
Chi-Square	13.597
df	4
Asymp. Sig.	.009

a. Kruskal Wallis Test

b. Grouping Variable: formula

F. Waktu mengering pada kaca

Kering kaca (detik)					
Replikasi	FI	FII	FIII	FIV	FV
1	15.2	20.3	25.4	30.2	0
2	15.3	20.2	25.3	30.3	0
3	15.1	20.3	25.1	30.5	0
Rata-rata	15.20	20.27	25.27	30.33	0.00
SD	0.10	0.06	0.15	0.15	0.00

One-Sample Kolmogorov-Smirnov Test

keringkaca	
N	15
Normal Parameters ^{a,b}	
Mean	18.2133
Std. Deviation	10.77403
Most Extreme Differences	
Absolute	.186
Positive	.155
Negative	-.186
Kolmogorov-Smirnov Z	.722
Asymp. Sig. (2-tailed)	.675

a. Test distribution is Normal.

b. Calculated from data.

Test of Homogeneity of Variances

keringkaca

Levene Statistic	df1	df2	Sig.
2.500	4	10	.109

ANOVA

keringkaca

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1624.997	4	406.249	33854.111	.000
Within Groups	.120	10	.012		
Total	1625.117	14			

Homogeneous Subsets

		Subset for alpha = 0.05				
	N	1	2	3	4	5
Tukey HSD ^a	Formula 5	3	.0000			
	Formula 1	3		15.2000		
	Formula 2	3			20.2667	
	Formula 3	3				25.2667
	Formula 4	3				30.3333
	Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

Lampiran 16. Uji statistik stabilitas

A. pH

UJI STABILITAS PH												
T0							T20					
Replikasi	F I	F II	F III	F IV	F V		Replikasi	F I	F II	F III	F IV	F V
1	6.00	7.34	7.76	7.82	7.90		1	7.18	6.89	6.80	6.66	6.71
2	7.00	7.30	7.75	7.81	7.88		2	7.21	6.87	6.78	6.68	6.68
3	7.26	7.28	7.73	7.82	7.87		3	7.17	6.85	6.82	6.64	6.72
Rata-rata	6.75	7.31	7.75	7.82	7.88	Rata-rata	7.19	6.87	6.80	6.66	6.70	
SD	0.67	0.03	0.02	0.01	0.02	SD	0.02	0.02	0.02	0.02	0.02	0.02

• FORMULA I

• One-Sample Kolmogorov-Smirnov Test

		ujipH_F1
N		6
Normal Parameters ^{a,b}	Mean	7.2167
	Std. Deviation	.03670
Most Extreme Differences	Absolute	.174
	Positive	.174
	Negative	-.151
Kolmogorov-Smirnov Z		.427
Asymp. Sig. (2-tailed)		.993

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means							
								95% Confidence Interval of the Difference		
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
ujipH_F1	Equal variances assumed	.500	.519	4.025	4	.016	.06000	.01491	.01861	.10139
	Equal variances not assumed			4.025	3.670	.019	.06000	.01491	.01710	.10290

• FORMULA II

• One-Sample Kolmogorov-Smirnov Test

		ujipH_F2
N		6
Normal Parameters ^{a,,b}	Mean	7.0883
	Std. Deviation	.24028
Most Extreme Differences	Absolute	.295
	Positive	.295
	Negative	-.287
Kolmogorov-Smirnov Z		.724
Asymp. Sig. (2-tailed)		.672

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Lower	Upper
ujipH_F2 Equal variances assumed	.727	.442	20.713	4	.000	.43667	.02108	.37813	.49520
Equal variances not assumed			20.713	3.448	.000	.43667	.02108	.37425	.49908

•FORMULA III

One-Sample Kolmogorov-Smirnov Test

		ujipH_F3
N		6
Normal Parameters ^{a,b}	Mean	7.2733
	Std. Deviation	.51875
Most Extreme Differences	Absolute	.311
	Positive	.309
	Negative	-.311
Kolmogorov-Smirnov Z		.761
Asymp. Sig. (2-tailed)		.609

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference			
							Lower	Upper		
ujipH_F3 Equal variances assumed	.082	.789	65.154	4	.000	.94667	.01453	.90633	.98701	
Equal variances not assumed			65.154	3.741	.000	.94667	.01453	.90520	.98813	

•FORMULA IV

One-Sample Kolmogorov-Smirnov Test

		ujipH_F4
N		6
Normal Parameters ^{a,b}	Mean	7.2383
	Std. Deviation	.63367
Most Extreme Differences	Absolute	.317
	Positive	.311
	Negative	-.317
Kolmogorov-Smirnov Z		.775
Asymp. Sig. (2-tailed)		.585

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
ujipH_F4 Equal variances assumed	1.730	.259	96.240	4	.000	1.15667	.01202	1.12330	1.19004
Equal variances not assumed			96.240	2.331	.000	1.15667	.01202	1.11139	1.20194

•FORMULA V**One-Sample Kolmogorov-Smirnov Test**

		ujipH_F5
N		6
Normal Parameters ^{a,b}	Mean	7.2933
	Std. Deviation	.64652
Most Extreme Differences	Absolute	.314
	Positive	.312
	Negative	-.314
Kolmogorov-Smirnov Z		.769
Asymp. Sig. (2-tailed)		.596

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
ujipH_F5 Equal variances assumed	.500	.519	79.157	4	.000	1.18000	.01491	1.13861	1.22139
Equal variances not assumed			79.157	3.670	.000	1.18000	.01491	1.13710	1.22290

B. Viskositas

UJI STABILITAS VISKOSITAS												
T0						T20						
Replikasi	FI	FII	FIII	FIV	FV	Replikasi	FI	FII	FIII	FIV	FV	
1	6	600.53	1000.33	1000. 76	1500. 14	1	2	200. 44	400.5 6	500. 23	600. .34	
2	7	600.51	1000.21	1000. 72	1500. 15	2	3	200. 46	400.5 4	500. 24	600. .37	
3	7	600.56	1000.35	1000. 74	1500. 12	3	2.5	200. 51	400.5 1	500. 27	600. .31	
Rata-rata	7	601	1000	1001	1500	Rata-rata	3	200	401	500	600	
SD	0.58	0.03	0.08	0.02	0.02	SD	0.50	0.04	0.03	0.02	0.03	

- FORMULA I

One-Sample Kolmogorov-Smirnov Test

		viskositas_F1
N		6
Normal Parameters ^{a,b}	Mean	4.5833
	Std. Deviation	2.33274
Most Extreme Differences	Absolute	.251
	Positive	.251
	Negative	-.228
Kolmogorov-Smirnov Z		.616
Asymp. Sig. (2-tailed)		.843

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
viskositas_F1 Equal variances assumed	.308	.609	9.449	4	.001	4.16667	.44096	2.94237	5.39096
Equal variances not assumed			9.449	3.920	.001	4.16667	.44096	2.93245	5.40088

• FORMULA II**One-Sample Kolmogorov-Smirnov Test**

		viskositas_F2
N		6
Normal Parameters ^{a,,b}	Mean	400.5017
	Std. Deviation	219.12371
Most Extreme Differences	Absolute	.319
	Positive	.319
	Negative	-.319
Kolmogorov-Smirnov Z		.782
Asymp. Sig. (2-tailed)		.573

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
			t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
	F	Sig.								
viskositas_F2	.604	.481	15759.267	4	.000	400.06333	.02539	399.99285	400.13382	
			15759.267	3.575	.000	400.06333	.02539	399.98942	400.13725	

- **FORMULA III**

One-Sample Kolmogorov-Smirnov Test

		viskositas_F3
N		6
Normal Parameters ^{a,b}	Mean	700.4167
	Std. Deviation	328.50208
Most Extreme Differences	Absolute	.319
	Positive	.319
	Negative	-.319
Kolmogorov-Smirnov Z		.782
Asymp. Sig. (2-tailed)		.573

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
			t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower		
	F	Sig.								
viskositas_F3	5.423	.080	13019.133	4	.000	599.76000	.04607	599.63210	599.88790	
			13019.133	2.437	.000	599.76000	.04607	599.59221	599.92779	

- **FORMULA IV**

One-Sample Kolmogorov-Smirnov Test

		viskositas_F4
N		6
Normal Parameters ^{a,b}	Mean	750.4933
	Std. Deviation	274.13149
Most Extreme Differences	Absolute	.319
	Positive	.319
	Negative	-.319
Kolmogorov-Smirnov Z		.782
Asymp. Sig. (2-tailed)		.573

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Varianc es	t-test for Equality of Means								
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
viskositas_F4	Equal variance assumed	.073	.801	30029.600	4	.000	500.49333	.01667	500.44706	500.53961
	Equal variance not assumed			30029.600	3.994	.000	500.49333	.01667	500.44703	500.53964

- **FORMULA V**

One-Sample Kolmogorov-Smirnov Test

		viskositas_F5
N		6
Normal Parameters ^{a,,b}	Mean	1050.2383
	Std. Deviation	492.83893
Most Extreme Differences	Absolute	.319
	Positive	.319
	Negative	-.319
Kolmogorov-Smirnov Z		.782
Asymp. Sig. (2-tailed)		.573

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
viskositas_F5	.681	.456	46294.157	4	.000	899.79667	.01944	899.74270	899.85063	
			46294.157	2.972	.000	899.79667	.01944	899.73448	899.85886	

C. DAYA LEKAT**• FORMULA I****One-Sample Kolmogorov-Smirnov Test**

		ujidayalekat_F1
N		6
Normal Parameters ^{a,b}	Mean	1.1100
	Std. Deviation	.12744
Most Extreme Differences	Absolute	.306
	Positive	.306
	Negative	-.194
Kolmogorov-Smirnov Z		.749
Asymp. Sig. (2-tailed)		.628

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means								
								95% Confidence Interval of the Difference		
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
ujidayalekat_F1	Equal variances assumed	6.323	.066	-5.811	4	.004	-.22000	.03786	-.32511	.11489
	Equal variances not assumed			-5.811	2.000	.028	-.22000	.03786	-.38290	.05710

• FORMULA II**One-Sample Kolmogorov-Smirnov Test**

		ujidayalekat_F2
N		6
Normal Parameters ^{a,b}	Mean	3.1317
	Std. Deviation	2.33523
Most Extreme Differences	Absolute	.319
	Positive	.319
	Negative	-.316
Kolmogorov-Smirnov Z		.782
Asymp. Sig. (2-tailed)		.573

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means								
								95% Confidence Interval of the Difference		
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
ujidayalekat_F2	Equal variance assumed	5.319	.082	-210.266	4	.000	-4.26333	.02028	-4.31963	4.20704
	Equal variance not assumed			-210.266	2.000	.000	-4.26333	.02028	-4.35057	4.17609

• FORMULA III**One-Sample Kolmogorov-Smirnov Test**

		ujidayalekat_F3
N		6
Normal Parameters ^{a,b}	Mean	10.8900
	Std. Deviation	10.83502
Most Extreme Differences	Absolute	.319
	Positive	.319
	Negative	-.313
Kolmogorov-Smirnov Z		.782
Asymp. Sig. (2-tailed)		.573

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means								
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
ujidayalekat_F3	Equal variance assumed	4.000	.116	-142.750	4	.000	19.78000	.13856	-20.16472	19.39528
	Equal variance not assumed			-142.750	2	.000	19.78000	.13856	-20.37619	19.18381

• FORMULA IV**One-Sample Kolmogorov-Smirnov Test**

		ujidayalekat_F4
N		6
Normal Parameters ^{a,b}	Mean	17.8533
	Std. Deviation	16.89364
Most Extreme Differences	Absolute	.319
	Positive	.314
	Negative	-.319
Kolmogorov-Smirnov Z		.782
Asymp. Sig. (2-tailed)		.574

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means								
								95% Confidence Interval of the Difference		
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
ujidayalekat_F4	Equal variances assumed	6.762	.060	-134.270	4	.000	30.84000	.22969	-31.47771	30.20229
	Equal variances not assumed			-134.270	4	.000	30.84000	.22969	-31.82192	29.85808

• FORMULA V**One-Sample Kolmogorov-Smirnov Test**

		ujidayalekat_F5
N		6
Normal Parameters ^{a,b}	Mean	21.7567
	Std. Deviation	20.66829
Most Extreme Differences	Absolute	.319
	Positive	.316
	Negative	-.319
Kolmogorov-Smirnov Z		.781
Asymp. Sig. (2-tailed)		.576

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means								
								95% Confidence Interval of the Difference		
		F	Sig.	t	df	Sig. (2- tailed)	Mean Differenc e	Std. Error Differenc e	Lower	Upper
ujidayalekat_F 5	Equal variance s assumed	8.30 5	.055	- 215. 083	4	.000	37.73333	-.17544	- 38.2204 2	37.2462 5
	Equal variance s not assumed			- 215. 083	2.09 0	.000	37.73333	-.17544	- 38.4578 6	37.0088 1

D. DAYA SEBAR

UJI STABILITAS DAYA SEBAR											
T0						T20					
Beban 44,6 g						Beban 44,6 g					
Replikasi	FI	FII	FIII	FIV	FV	Replikasi	FI	FII	FIII	FIV	FV
1	6.86	5.2	4.92	4.68	3	1	7.12	5.52	5.31	5.12	4.25
2	6.53	5.31	4.87	4.72	2.24	2	7.37	5.84	5.47	5.27	3.73
3	6.52	5.24	5.12	4.82	2.39	3	7.45	5.54	5.52	5.27	3.62
Rata-rata	6.64	5.25	4.97	4.74	2.54	Rata-rata	7.31	5.63	5.43	5.22	3.87
SD	0.19	0.06	0.13	0.07	0.40	SD	0.17	0.18	0.11	0.09	0.34
Beban 94.6 g						Beban 94.6 g					
Replikasi	FI	FII	FIII	FIV	FV	Replikasi	FI	FII	FIII	FIV	FV
1	6.93	5.59	5.54	4.85	2.62	1	7.23	6.13	5.62	5.19	4.39
2	6.64	5.9	5.52	4.82	2.53	2	7.5	6.03	5.78	5.28	3.81
3	6.62	5.6	5.42	4.78	2.63	3	7.52	6.2	5.74	5.25	3.73
Rata-rata	6.73	5.70	5.49	4.82	2.59	Rata-rata	7.42	6.12	5.71	5.24	3.98
SD	0.17	0.18	0.06	0.04	0.06	SD	0.16	0.09	0.08	0.05	0.36
Beban 144.6 g						Beban 144.6 g					
Replikasi	FI	FII	FIII	FIV	FV	Replikasi	FI	FII	FIII	FIV	FV
1	6.97	5.6	5.82	4.9	2.86	1	7.32	6.48	5.85	5.23	4.42
2	6.72	5.94	5.76	4.98	2.84	2	7.73	6.45	5.84	5.36	3.93
3	6.69	5.68	5.73	5.01	2.83	3	7.58	6.42	5.79	5.3	3.95
Rata-rata	6.79	5.74	5.77	4.96	2.84	Rata-rata	7.54	6.45	5.83	5.30	4.10
SD	0.15	0.18	0.05	0.06	0.02	SD	0.21	0.03	0.03	0.07	0.28
Beban 194.6 g						Beban 194.6 g					
Replikasi	FI	FII	FIII	FIV	FV	Replikasi	FI	FII	FIII	FIV	FV
1	6.98	5.64	6.2	5.21	3.02	1	7.51	6.73	6.34	5.28	4.45
2	6.76	6.23	6.17	5.23	2.95	2	7.85	6.7	6.45	5.42	4.02
3	6.72	5.72	6.15	5.3	2.92	3	7.82	6.68	6.38	5.84	4.09
Rata-rata	6.82	5.86	6.17	5.25	2.96	Rata-rata	7.73	6.70	6.39	5.51	4.19
SD	0.14	0.32	0.03	0.05	0.05	SD	0.19	0.03	0.06	0.29	0.23

• **FORMULA I**

One-Sample Kolmogorov-Smirnov Test

		beban1_F1	beban2_F1	beban3_F1	beban4_F1
N		6	6	6	6
Normal Parameters ^{a,b}	Mean	6.9750	7.0733	7.1683	7.2733
	Std. Deviation	.40520	.40495	.44206	.51829
Most Extreme Differences	Absolute	.197	.191	.178	.214
	Positive	.197	.191	.178	.214
	Negative	-.169	-.187	-.157	-.188
Kolmogorov-Smirnov Z		.483	.468	.436	.525
Asymp. Sig. (2-tailed)		.974	.981	.991	.946

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
			F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
										Lower
beban1_F1	Equal variances assumed	.135	.732	-4.526	4	.011	-.67667	.14952	-1.09179	.26154
				-4.526	3.947	.011	-.67667	.14952	-1.09402	.25931
beban2_F1	Equal variances assumed	.037	.857	-5.011	4	.007	-.68667	.13703	-1.06713	.30620
				-5.011	3.981	.008	-.68667	.13703	-1.06784	.30550
beban3_F1	Equal variances assumed	.230	.656	-5.031	4	.007	-.75000	.14907	-1.16389	.33611
				-5.031	3.688	.009	-.75000	.14907	-1.17808	.32192
beban4_F1	Equal variances assumed	.642	.468	-6.694	4	.003	-.90667	.13544	-1.28271	.53062
				-6.694	3.694	.003	-.90667	.13544	-1.29531	.51802

• FORMULA II

One-Sample Kolmogorov-Smirnov Test

		bebani_F2	bebani_F2	bebani_F2	bebani_F2
N		6	6	6	6
Normal Parameters ^{a,b}	Mean	5.4083	5.8950	6.0950	6.2833
	Std. Deviation	.18159	.24664	.40525	.50290
Most Extreme Differences	Absolute	.231	.218	.289	.285
	Positive	.206	.218	.180	.202
	Negative	-.231	-.208	-.289	-.285
Kolmogorov-Smirnov Z		.565	.533	.707	.698
Asymp. Sig. (2-tailed)		.907	.939	.699	.715

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means							95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Lower	Upper
beban1_F2	Equal variances assumed	.190	.685	- 6.449	4	.003	-.31667	.04910	-.45300	-.18033
	Equal variances not assumed			- 6.449	3.920	.003	-.31667	.04910	-.45410	.17923
beban2_F2	Equal variances assumed	6.824	.059	- 3.722	4	.020	-.39667	.10656	-.69253	.10080
	Equal variances not assumed			- 3.722	2.387	.049	-.39667	.10656	-.79077	.00256
beban3_F2	Equal variances assumed	7.363	.053	- 6.821	4	.002	-.71000	.10408	-.99898	.42102
	Equal variances not assumed			- 6.821	2.114	.018	-.71000	.10408	1.13550	.28450
beban4_F2	Equal variances assumed	11.890	.026	- 4.532	4	.011	-.84000	.18535	1.35462	.32538
	Equal variances not assumed			- 4.532	2.025	.044	-.84000	.18535	1.62825	.05175

• FORMULA III

One-Sample Kolmogorov-Smirnov Test

	beban1_F3	beban2_F3	beban3_F3	beban4_F3	
N	6	6	6	6	
Normal Parameters ^{a,b}	Mean	5.2017	5.6033	5.7983	6.2817
	Std. Deviation	.27607	.13765	.04708	.12481
Most Extreme Differences	Absolute	.180	.177	.177	.244
	Positive	.180	.177	.136	.244
	Negative	-.168	-.173	-.177	-.180
Kolmogorov-Smirnov Z		.440	.434	.434	.597
Asymp. Sig. (2-tailed)		.990	.992	.992	.869

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
beban1_F3	Equal variances assumed	.216	.666	- 4.670	4	.010	-.46333	.09922	- .73881	.18786
				- 4.670	3.867	.010	-.46333	.09922	- .74257	.18409
beban2_F3	Equal variances assumed	.319	.603	- 3.622	4	.022	-.22000	.06074	- .38863	.05137
				- 3.622	3.759	.025	-.22000	.06074	- .39297	.04703
beban3_F3	Equal variances assumed	.416	.554	- 1.753	4	.154	-.05667	.03232	- .14640	.03306
				- 1.753	3.585	.163	-.05667	.03232	- .15065	.03732
beban4_F3	Equal variances assumed	1.724	.259	- 6.142	4	.004	-.21667	.03528	- .31461	.11872
				- 6.142	2.784	.011	-.21667	.03528	- .33401	.09932

• FORMULA IV

One-Sample Kolmogorov-Smirnov Test

		beban1_F4	beban2_F4	beban3_F4	beban4_F4
N		6	6	6	6
Normal Parameters ^{a,b}	Mean	4.9750	5.0283	5.1300	5.3300
	Std. Deviation	.26621	.23473	.19058	.12649
Most Extreme Differences	Absolute	.220	.276	.236	.260
	Positive	.220	.276	.236	.260
	Negative	-.207	-.255	-.200	-.171
Kolmogorov-Smirnov Z		.538	.677	.577	.638
Asymp. Sig. (2-tailed)		.934	.749	.893	.811

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means							
			t-test for Equality of Means						95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2- tailed)	Mean Differenc e	Std. Error Differe nce	Lower	Upper	
beban1_F4	Equal variances assumed	.073	.801	-7.591	4	.002	-.47000	.06191	-.64190	-.29810
	Equal variances not assumed			-7.591	3.964	.002	-.47000	.06191	-.64252	-.29748
beban2_F4	Equal variances assumed	.308	.609	-12.700	4	.000	-.42333	.03333	-.51588	-.33079
	Equal variances not assumed			-12.700	3.747	.000	-.42333	.03333	-.51840	-.32826
beban3_F4	Equal variances assumed	.008	.933	-6.682	4	.003	-.33333	.04989	-.47185	-.19482
	Equal variances not assumed			-6.682	3.930	.003	-.33333	.04989	-.47283	-.19383
beban4_F4	Equal variances assumed	1.575	.278	-2.085	4	.105	-.16667	.07993	-.38859	.05526
	Equal variances not assumed			-2.085	2.519	.146	-.16667	.07993	-.45089	.11756

• FORMULA V

One-Sample Kolmogorov-Smirnov Test

		bebani_F5	bebani_F5	bebani_F5	bebani_F5
N		6	6	6	6
Normal Parameters ^{a,b}	Mean	3.1483	3.2850	3.4717	3.5750
	Std. Deviation	.76507	.79195	.71036	.68652
Most Extreme Differences	Absolute	.173	.296	.305	.291
	Positive	.173	.296	.305	.291
	Negative	-.118	-.213	-.241	-.242
Kolmogorov-Smirnov Z		.423	.725	.748	.712
Asymp. Sig. (2-tailed)		.994	.670	.630	.692

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
						Sig. (2-tailed)	Mean Difference	Std. Error Difference		
	F	Sig.	t	df					Lower	Upper
beban1_F5	Equal variances assumed	.035	.862	-	4	.026	-1.21000	.34893	-	-
				3.468					2.17880	.24120
beban2_F5	Equal variances not assumed			-	3.950	.026	-1.21000	.34893	-	-
				3.468					2.18368	.23632
beban3_F5	Equal variances assumed	10.085	.034	-	4	.003	-1.38333	.21037	-	-
				6.576					1.96741	.79925
beban4_F5	Equal variances not assumed			-	2.093	.020	-1.38333	.21037	-	-
				6.576					2.25084	.51583
beban3_F5	Equal variances assumed	14.131	.020	-	4	.001	-1.25667	.16035	-	-
				7.837					1.70186	.81147
beban4_F5	Equal variances not assumed			-	2.012	.016	-1.25667	.16035	-	-
				7.837					1.94261	.57072

E. WAKTU MENGERING KULIT

- FORMULA I

One-Sample Kolmogorov-Smirnov Test

		ujiwaktumengering _F1
N		6
Normal Parameters ^{a,b}	Mean	18.5550
	Std. Deviation	1.28295
Most Extreme Differences	Absolute	.299
	Positive	.299
	Negative	-.299
Kolmogorov-Smirnov Z		.732
Asymp. Sig. (2-tailed)		.657

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variance s		t-test for Equality of Means						95% Confidence Interval of the Difference	
			F	Sig.	t	df	Sig. (2- tailed)	Mean Differenc e	Std. Error Differenc e	
										Lower
ujiwaktumengering_F1	Equal variance s assume d	.44 1	.54 3	28.71 4	4	.000	2.33667	.08138	2.1107 3	2.5626 1
	Equal variance s not assume d			28.71 4	3.66 6	.000	2.33667	.08138	2.1023 6	2.5709 7

• **FORMULA II**

One-Sample Kolmogorov-Smirnov Test

		ujiwaktumengering _F2
N		6
Normal Parameters ^{a,b}	Mean	20.4733
	Std. Deviation	1.30844
Most Extreme Differences	Absolute	.283
	Positive	.283
	Negative	-.275
Kolmogorov-Smirnov Z		.693
Asymp. Sig. (2-tailed)		.723

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variance s	t-test for Equality of Means								95% Confidence Interval of the Difference
		F	Sig.	t	df	Sig. (2- tailed)	Mean Differenc e	Std. Error Differenc e	Lower	Upper
ujiwaktumengering_F2	Equal variance s assumed	.16 2	.70 8	17.44 4	4	.000	2.37333	.13606	1.9955 8	2.7510 8
	Equal variance s not assumed			17.44 4	3.75 2	.000	2.37333	.13606	1.9855 4	2.7611 2

• **FORMULA III**

One-Sample Kolmogorov-Smirnov Test

		ujiwaktumengering _F3
N		6
Normal Parameters ^{a,b}	Mean	22.8483
	Std. Deviation	2.28010
Most Extreme Differences	Absolute	.308
	Positive	.308
	Negative	-.275
Kolmogorov-Smirnov Z		.755
Asymp. Sig. (2-tailed)		.618

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means								95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2- tailed)	Mean Differenc e	Std. Error Differenc e			
								Lower	Upper		
ujiwaktumengering _F3	Equal variance s assumed Equal variance s not assumed	11.97 1	.02 6	13.31 1	4	.000 .005	4.11667 4.11667	.30926 .30926	3.2580 2.8196	4.9753 5.4137	

• **FORMULA IV**

One-Sample Kolmogorov-Smirnov Test

		ujiwaktumengering _F4
N		6
Normal Parameters ^{a,b}	Mean	27.7617
	Std. Deviation	3.35125
Most Extreme Differences	Absolute	.317
	Positive	.308
	Negative	-.317
Kolmogorov-Smirnov Z		.776
Asymp. Sig. (2-tailed)		.583

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means								95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2- tailed)	Mean Differenc e	Std. Error Differenc e	Lower		
uijwaktumengering _F4	Equal variance s assume d	8.67 3	.04 2	81.17 6	4	.000	6.11667	.07535	5.9074 6	6.3258 7	
	Equal variance s not assume d			81.17 6	2.22 2	.000	6.11667	.07535	5.8216 5	6.4116 8	

• **FORMULA V**

One-Sample Kolmogorov-Smirnov Test

		ujiwaktumengering _F5
N		6
Normal Parameters ^{a,b}	Mean	14.3233
	Std. Deviation	15.69086
Most Extreme Differences	Absolute	.319
	Positive	.319
	Negative	-.316
Kolmogorov-Smirnov Z		.782
Asymp. Sig. (2-tailed)		.573

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

	Levene's Test for Equality of Variance s	t-test for Equality of Means								95% Confidence Interval of the Difference
		F	Sig.	T	df	Sig. (2- tailed)	Mean Differenc e	Std. Error Differenc e	Lower	Upper
ujiwaktumengering_F5	Equal variance s assume d	5.23 8	.08 4	-267.39 0	4	.000	-28.6466 7	.10713	-28.9441 2	28.3492 1
	Equal variance s not assume d			-267.39 0	2.00 0	.000	-28.6466 7	.10713	-29.1076 3	28.1857 0

F. Waktu Mengering Kaca

One-Sample Kolmogorov-Smirnov Test

		Waktu Mengering Kaca F1	Waktu Mengering Kaca F2	Waktu Mengering Kaca F3	Waktu Mengering Kaca F4	Waktu Mengering Kaca F5
N		6	6	6	6	6
Normal Parameters ^{a,b}	Mean	15.1833	20.2333	22.8667	27.8167	15.2833
	Std. Deviation	.09832	.08165	2.63110	2.75856	16.74209
Most Extreme Differences	Absolute	.302	.293	.316	.319	.319
	Positive	.302	.207	.316	.319	.319
	Negative	-.216	-.293	-.302	-.306	-.318
Kolmogorov-Smirnov Z		.739	.717	.774	.782	.782
Asymp. Sig. (2-tailed)		.646	.682	.588	.574	.573

a. Test distribution is Normal.

b. Calculated from data.

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Waktu Mengering Kaca F1	Equal variances assumed	.308	.609	.378	4	.725	.03333	.08819	-.21153	.27819
	Equal variances not assumed			.378	3.920	.725	.03333	.08819	-.21351	.28018
	Equal variances assumed	.400	.561	1.000	4	.374	.06667	.06667	-.11843	.25176
	Equal variances not assumed			1.000	3.200	.387	.06667	.06667	-.13819	.27152
Waktu Mengering Kaca F2	Equal variances assumed									
	Equal variances not assumed									
	Equal variances assumed	2.571	.184	50.912	4	.000	4.80000	.09428	4.53823	5.06177
	Equal variances not assumed			50.912	2.560	.000	4.80000	.09428	4.46856	5.13144
Waktu Mengering Kaca F3	Equal variances assumed									
	Equal variances not assumed									
	Equal variances assumed									
	Equal variances not assumed									
Waktu Mengering Kaca F4	Equal variances assumed	7.692	.050	57.073	4	.000	5.03333	.08819	4.78847	5.27819
	Equal variances not assumed			57.073	2.000	.000	5.03333	.08819	4.65388	5.41279

Waktu Mengering Kaca F5	Equal variances assumed	16.00 0	.016	- .00 0	4	.000	- 30.5666 7	.03333	-30.65921	-30.47412
	Equal variances not assumed	- 917 .00 0	2.0 00	.000	30.5666 7	.03333	-30.71009	-30.42324		

Lampiran 17. Uji statistik aktivitas antioksidanAnalisis Statistik IC₅₀ ekstrak, formula dan kontrol**One-Sample Kolmogorov-Smirnov Test**

		IC50
N		24
	Mean	2775.2517
Normal Parameters ^{a,b}	Std.	3025.3792
	Deviation	9
Most Differences	Absolute	.330
	Positive	.330
	Negative	-.185
Kolmogorov-Smirnov Z		1.616
Asymp. Sig. (2-tailed)		.011

a. Test distribution is Normal.

b. Calculated from data.

*Kruskal Wallis***Test Statistics^{a,b}**

		IC50
Chi-Square		22.680
df		7
Asymp. Sig.		.002

a. Kruskal Wallis Test

b. Grouping Variable:

Sampel

Ekstrak dengan kontrol negatif

Test Statistics^a

	IC50
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: Sampel

b. Not corrected for ties.

Formula 1 dengan kelompok negatif

Test Statistics^a

	IC50
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: Sampel

b. Not corrected for ties.

Formula 2 dengan kelompok negatif

Test Statistics^a

	IC50
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: Sampel

b. Not corrected for ties.

Formula 3 dengan kelompok negatif

Test Statistics^a

	IC50
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: Sampel

b. Not corrected for ties.

Formula 4 dengan kelompok negative

Test Statistics^a

	IC50
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: Sampel

b. Not corrected for ties.

Formula 5 dengan kelompok negative

Test Statistics^a

	IC50
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: Sampel

b. Not corrected for ties.

Kontrol pasaran dengan kelompok negatif

Test Statistics^a

	IC50
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: Sampel

b. Not corrected for ties.