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Lampiran 1. Determinasi Tanaman



KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

BADAN KEBIJAKAN PEMBANGUNAN KESEHATAN

BALAI BESAR PENELITIAN DAN PENGEMBANGAN

TANAMAN OBAT DAN OBAT TRADISIONAL

Jalan Lawu No.11 Tawamangu, Karanganyar, Jawa Tengah 57792

Telepon (0271) 697 010 Faksimile (0271) 697 451

Laman b2p2toot.litbang.kemkes.go.id Surat Elektronik b2p2toot@litbang.kemkes.go.id

Nomor : KM.04.02/2/1650/2022

12 September 2022

Hal : Keterangan Determinasi

Yth. Dekan Fakultas Farmasi Universitas Setia Budi
Jalan Let. Jend. Sutoyo, Solo 57127

Merujuk surat Saudara nomor: 956/H6-04/30.08.2022 tanggal 30 Agustus 2022 hal permohonan determinasi, dengan ini kami sampaikan bahwa hasil determinasi sampel tanaman sebagai berikut:

Nama Pemohon : Dyah Larasati
 Nama Sampel : Kopi
 Sampel : Tanaman Segar
 Spesies : *Coffea canephora* Pierre ex A.Froehner
 Sinonim : *Coffea robusta* L.Linden
 Familia : Rubiaceae
 Penanggung Jawab : Nina Kurnianingrum, S.Si.

Hasil determinasi tersebut hanya mencakup sampel tanaman yang telah dikirimkan ke dan/atau berasal dari B2P2TOOT.

Atas perhatian Saudara, kami sampaikan terima kasih.

Kepala Balai Besar Penelitian
dan Pengembangan Tanaman Obat
dan Obat Tradisional



Akhmad Saikhu, S.K.M.,
M.Sc.PH.

Lampiran 2. Perhitungan simplisia kering Biji Kopi Robusta

Sampel	Biji kopi (gram)	Simplisia kering (gram)	Randemen (%)
Biji Kopi	10.325	2.400	23,44%

Biji Kopi = 10.325 gram

Simplisia Kering = 2.400 gram

$$\% \text{ randemen} = \frac{\text{bobot simplisia Kering}}{\text{bobot simplisia Basah}} \times 100 \%$$

$$\% \text{ randemen} = \frac{2.400 \text{ gram}}{10.325 \text{ gram}} \times 100\% = 23,44\%$$

Lampiran 3. Perhitungan Rendemen Ekstrak Biji Kopi Robusta

Sampel	Bobot serbuk (gram)	Bobot ekstrak(gram)	Randemen (%)
Biji Kopi	750	112	14,93%

$$\text{Rendemen Ekstrak} = \frac{\text{Bobot Ekstrak}}{\text{Bobot Serbuk}} \times 100\%$$






$$\% \text{ rendemen} = \frac{112}{7,50} \times 100\% = 14,93\%$$

Lampiran 4. Perhitungan dan gambar susut pengeringan serbuk Biji kopi

Sampel	Replikasi	Berat sampel (gram)	Susut pengeringan (%)
Serbuk	1	2,0	4,5
	2	2,0	4
	2	2,0	3,5
Rata -rata			4±0,05




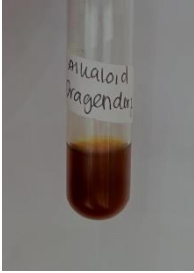




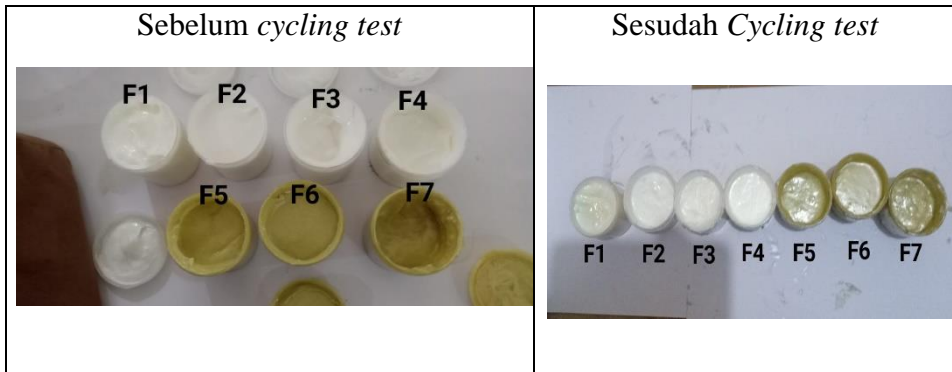
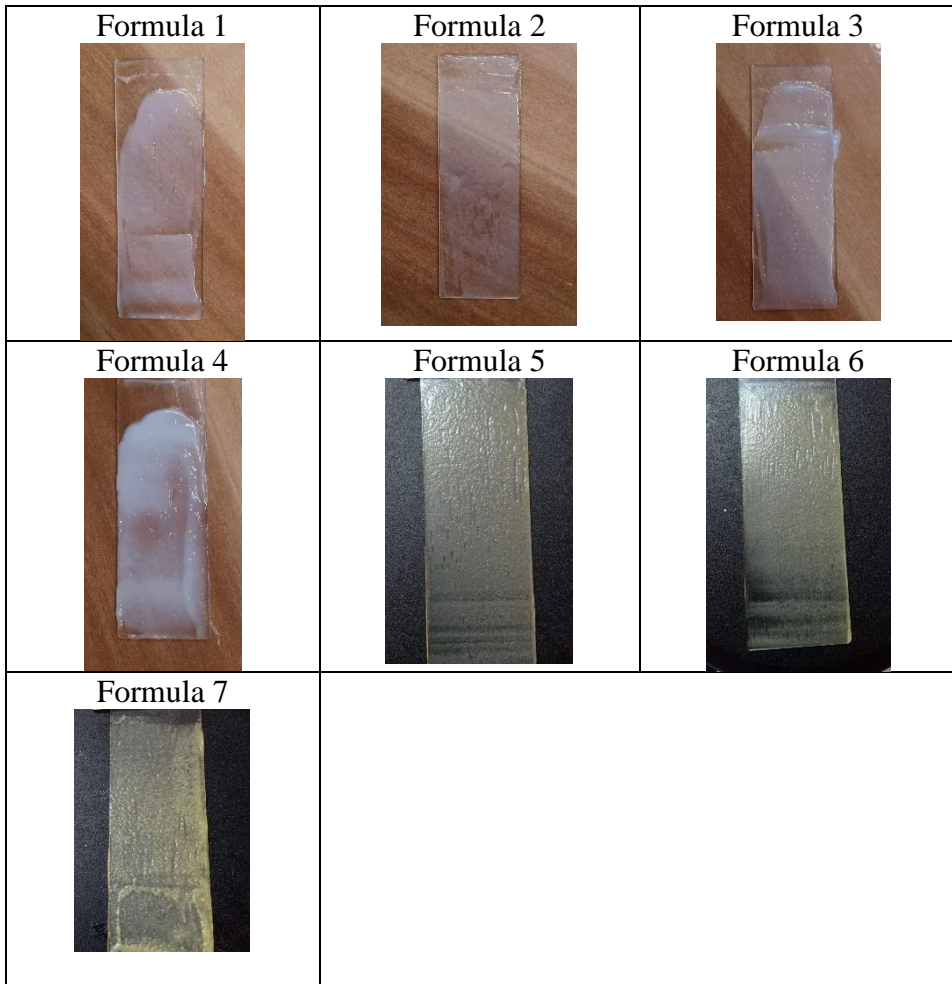
Lampiran 5. Gambar dan Alat Penelitian

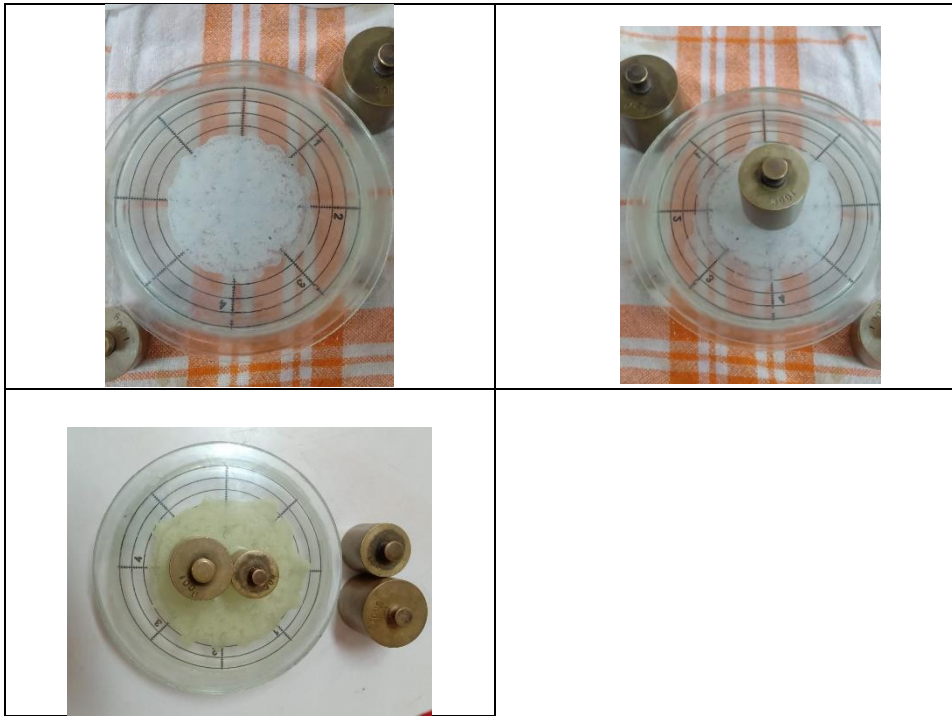
Bahan	
<p>Tanaman Kopi Robusta</p> 	<p>Biji Kopi Robusta</p> 
<p>Serbuk Biji Kopi</p> 	<p>Ekstrak Biji Kopi</p> 
<p>Penimbangan serbuk DPPH</p> 	

Lampiran 6. Hasil dan gambar perhitungan Kadar Air ekstrak

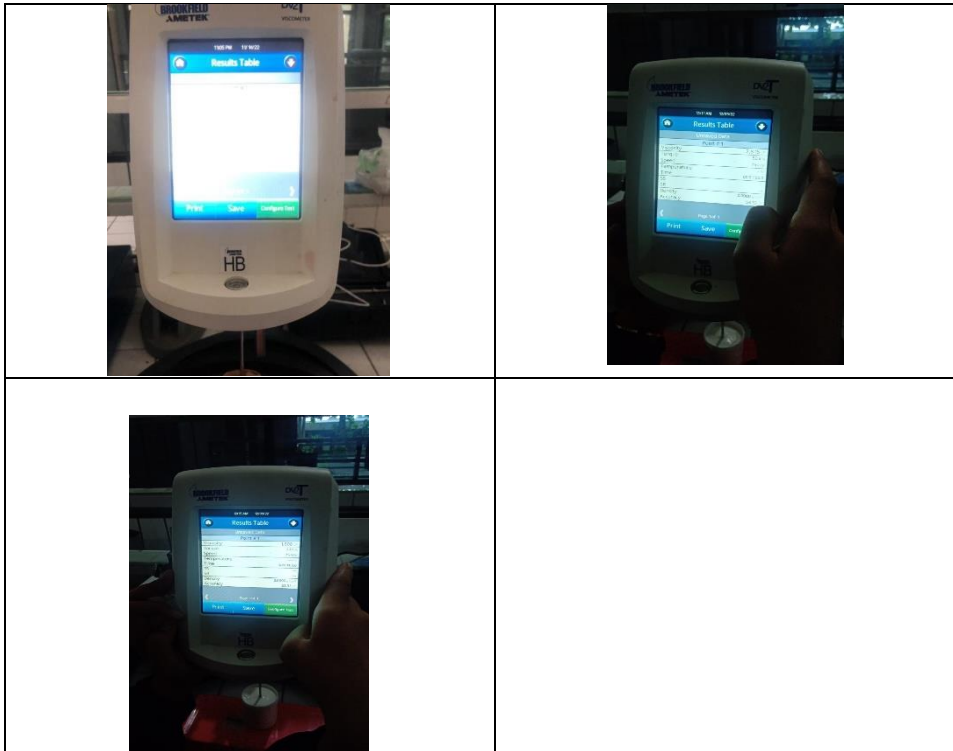
Lampiran 7. Hasil uji identifikasi senyawa ekstrak Biji Kopi

Uji Identifikasi Senyawa	
<p>Flavonoid</p> 	<p>Alkaloid Bouchardt</p> 
<p>Tanin</p> 	<p>Alkaloid Dragendrof</p> 
<p>Terpenoid</p> 	<p>Saponin</p> 

Lampiran 8. Gambar proses pengujian uji mutu fisik lotion**a. Gambar uji organoleptis****b. Gambar uji homogenitas lotion**

c. Uji Daya Sebar *Lotion***d. Uji Daya Lekat**





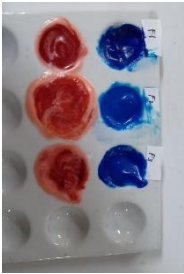


e. Uji Viskositas *Lotion*



f. Uji pH



g. Uji Tipe Emulsi

<p data-bbox="308 214 514 247">pengenceran air</p> 	<p data-bbox="624 214 788 247">Pengenceran</p>  <p data-bbox="655 653 757 685">Minyak</p>	<p data-bbox="898 214 1104 247">Pengenceran air</p> 
<p data-bbox="277 767 546 799">Pengenceran minyak</p> 		
		

Lampiran 9. Perhitungan Larutan Induk DPPH

Penimbangan serbuk DPPH

Serbuk DPPH untuk uji aktivitas antioksidan ditimbang sesuai perhitungansebagai berikut :

$$\text{Molaritas (M)} = \frac{\text{mol}}{\text{volume}}$$

$$\text{Molaritas (M)} = \frac{\text{bobot (gram)serbuk DPPH}}{\text{BM DPPH} \times \text{Volume (liter)}}$$

$$0,4\text{Mm} = \frac{\text{mol}}{394,2 \times 0,1}$$

$$\text{Bobot serbuk DPPH} = 0,0004 \times 394,32 \times 0,1$$

$$= 0,015772 \text{ gram} = 15,772 \text{ mg} = 15,8 \text{ mg}$$

Pembuatan larutan DPPH

Serbuk DPPH ditimbang sebanyak 15,8 mg kemudian dilarutkan dengan etanol p.a sampai tanda batas labu takar 100 mL. Kemudian dibaca absorbansi larutan DPPH dan didapatkan nilai absorbansi 0,619

Lampiran 10. Perhitungan pembuatan larutan stok

Pembuatan larutan stok vitamin C

Pembutan larutan stok vitamin C dengan menimbang 10 mg dimasukkan dalam labu takar dan ditambahkan etanol p.a sampai pada batas 100 mL, sehingga diperoleh konsentrasi 100 ppm. Kemudian dibuat beberapa seri pengenceran yaitu 2 ppm, 4 ppm, 6 ppm, 8 ppm dan 10 ppm.

Perhitungan seri konsentrasi

1. Konsentrasi 2 ppm

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

$$V_1 \times 100$$

$$\text{ppm} = 10 \text{ ml} \times 2 \text{ ppm} \quad V_1 = 0,2 \text{ mL}$$

2. Konsentrasi 4 ppm

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

$$V_1 \times 100$$

$$\text{ppm} = 10 \text{ ml} \times 4 \text{ ppm} \quad V_1 = 0,4 \text{ mL}$$

3. Konsentrasi 6 ppm

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

$$V_1 \times 100$$

$$\text{ppm} = 10 \text{ ml} \times 6 \text{ ppm} V_1 = 0,6 \text{ mL}$$
4. Konsentrasi 8 ppm

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

$$V_1 \times 100$$

$$\text{ppm} = 10 \text{ ml} \times 8 \text{ ppm} V_1 = 0,8 \text{ mL}$$
5. Konsentrasi 10 ppm

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

$$V_1 \times 100$$

$$\text{ppm} = 10 \text{ ml} \times 10 \text{ ppm} V_1 = 1 \text{ mL}$$

Pembuatan larutan stok biji Kopi

Pembuatan larutan stok ekstrak biji kopi dengan menimbang 50 mg dimasukkan kedalam labu takar dan ditambahkan etanol p.a sampai tanda batas 100 mL, sehingga diperoleh konsentrasi 500 ppm. Kemudian dibuat beberapa seri pengenceran yaitu 10 ppm, 20 ppm, 30 ppm, 40 ppm, 50 ppm.

Perhitungan seri pengenceran

1. Konsentrasi 10 ppm

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

$$V_1 \times 500$$

$$\text{ppm} = 10 \text{ ml} \times 10 \text{ ppm} V_1 = 0,2 \text{ mL}$$
2. Konsentrasi 20 ppm

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

$$V_1 \times 500$$

$$\text{ppm} = 10 \text{ ml} \times 20 \text{ ppm} V_1 = 0,4 \text{ mL}$$
3. Konsentrasi 30 ppm

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

$$V_1 \times 500$$

$$\text{ppm} = 10 \text{ ml} \times 30 \text{ ppm} V_1 = 0,6 \text{ mL}$$
4. Konsentrasi 40 ppm

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

$$V_1 \times 500$$

$$\text{ppm} = 10 \text{ ml} \times 40 \text{ ppm} V_1 = 0,8 \text{ mL}$$

5. Konsentrasi 50 ppm

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

$$V_1 \times 500$$

$$\text{ppm} = 10 \text{ ml} \times 50 \text{ ppm} \quad V_1 = 1 \text{ mL}$$

Pembuatan larutan stok FI, FII, FIII, FIV, FV, FVI, dan FVII

Pembuatan larutan stok *lotion* formula 1-7 dengan menimbang 50 mg dimasukkan kedalam labu ukur dan ditambahkan etanol p.a sampai tanda batas 100 mL, sehingga diperoleh konsentrasi 500 ppm. Kemudian dibuat beberapa seri pengenceran yaitu 60 ppm, 70 ppm, 80 ppm, 90 ppm, dan 100 ppm.

Perhitungan seri konsentrasi

1. Konsentrasi 60 ppm

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

$$V_1 \times 500$$

$$\text{ppm} = 10 \text{ ml} \times 60 \text{ ppm} \quad V_1 = 1,2 \text{ mL}$$

2. Konsentrasi 70 ppm

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

$$V_1 \times 500$$

$$\text{ppm} = 10 \text{ ml} \times 70 \text{ ppm} \quad V_1 = 1,4 \text{ mL}$$

3. Konsentrasi 80 ppm

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

$$V_1 \times 500$$

$$\text{ppm} = 10 \text{ ml} \times 80 \text{ ppm} \quad V_1 = 1,6 \text{ mL}$$

4. Konsentrasi 90 ppm

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

$$V_1 \times 500$$

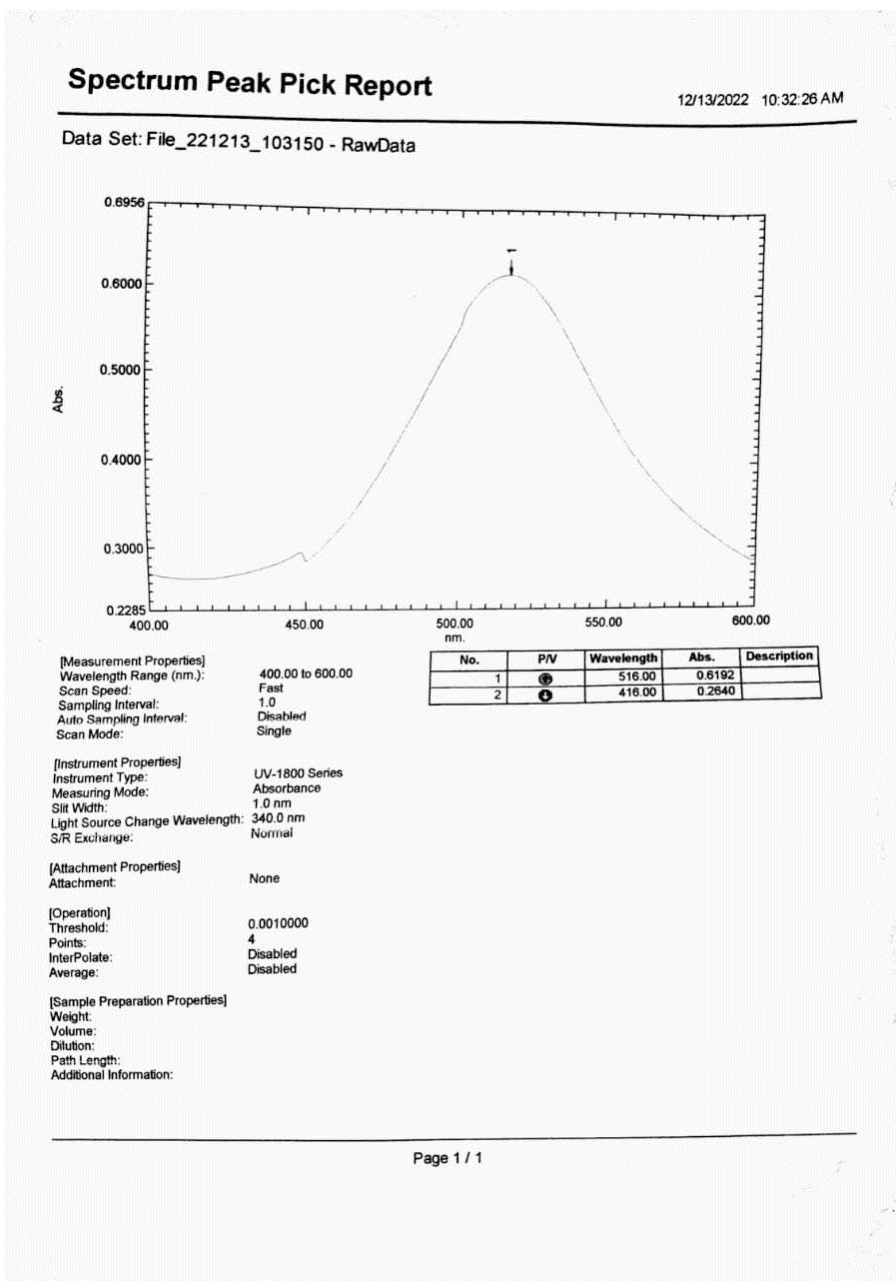
$$\text{ppm} = 10 \text{ ml} \times 90 \text{ ppm} \quad V_1 = 1,8 \text{ mL}$$

5. Konsentrasi 100 ppm

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

$$V_1 \times 500 \text{ ppm} = 10 \text{ ml} \times 100 \text{ ppm} \quad V_1 = 2 \text{ mL}$$

Lampiran 11. Penentuan Panjang gelombang



Lampiran 12. Penentuan *operating time*

1. Vitamin C

— Ot Vitamin C

Kinetics Data Print Report

12/14/2022 01:31:58 PM

Time (Minute)	RawData ...
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7.000	0.789
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9.000	0.788
10.000	0.789
11.000	0.788
12.000	0.787
13.000	0.786
14.000	0.786
15.000	0.785
16.000	0.785
17.000	0.787
18.000	0.785
19.000	0.785
20.000	0.785
21.000	0.785
22.000	0.784
23.000	0.784
24.000	0.785
25.000	0.783
26.000	0.783
27.000	0.783
28.000	0.783
29.000	0.783
30.000	0.782
31.000	0.781
32.000	0.782
33.000	0.781
34.000	0.781
35.000	0.782
36.000	0.781
37.000	0.780
38.000	0.782
39.000	0.780
40.000	0.780
41.000	0.780
42.000	0.780
43.000	0.779
44.000	0.779
45.000	0.780
46.000	0.779
47.000	0.779
48.000	0.779
49.000	0.779
50.000	0.779

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38

Time (Minute)	RawData ...
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52.000	0.779
53.000	0.778
54.000	0.778
55.000	0.778
56.000	0.778
57.000	0.778
58.000	0.778
59.000	0.778
60.000	0.778

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2. Ekstrak biji kopi

• — OT Ekstrak

Kinetics Data Print Report

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Time (Minute)	RawData ...
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1.000	0.548
2.000	0.551
3.000	0.561
4.000	0.568
5.000	0.572
6.000	0.578
7.000	0.578
8.000	0.579
9.000	0.587
10.000	0.590
11.000	0.594
12.000	0.595
13.000	0.596
14.000	0.596
15.000	0.600
16.000	0.601
17.000	0.602
18.000	0.602
19.000	0.605
20.000	0.605
21.000	0.606
22.000	0.606
23.000	0.608
24.000	0.608
25.000	0.609
26.000	0.610
27.000	0.610
28.000	0.610
29.000	0.611
30.000	0.610
31.000	0.611
32.000	0.612
33.000	0.612
34.000	0.613
35.000	0.614
36.000	0.614
37.000	0.615
38.000	0.614
39.000	0.614
40.000	0.615
41.000	0.615
42.000	0.615
43.000	0.616
44.000	0.616
45.000	0.617
46.000	0.618
47.000	0.617
48.000	0.617
49.000	0.616
50.000	0.617

Time (Minute)	RawData ...
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53.000	0.617
54.000	0.617
55.000	0.617
56.000	0.617
57.000	0.617
58.000	0.617
59.000	0.617
60.000	0.617

51 - 61

3. Formula 1

OT f + vitamin c

Kinetics Data Print Report

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Time (Minute)	RawData ...
0.000	0.686
1.000	0.687
2.000	0.688
3.000	0.683
4.000	0.681
5.000	0.682
6.000	0.681
7.000	0.679
8.000	0.680
9.000	0.679
10.000	0.679
11.000	0.679
12.000	0.678
13.000	0.679
14.000	0.679
15.000	0.679
16.000	0.678
17.000	0.678
18.000	0.678
19.000	0.678
20.000	0.678
21.000	0.678
22.000	0.678
23.000	0.679
24.000	0.678
25.000	0.678
26.000	0.677
27.000	0.678
28.000	0.678
29.000	0.678
30.000	0.678
31.000	0.678
32.000	0.678
33.000	0.679
34.000	0.679
35.000	0.679
36.000	0.679
37.000	0.680
38.000	0.681
39.000	0.681
40.000	0.681
41.000	0.682
42.000	0.683
43.000	0.683
44.000	0.683
45.000	0.685
46.000	0.684
47.000	0.685
48.000	0.686
49.000	0.686
50.000	0.687

17-23

Time (Minute)	RawData ...
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53.000	0.688
54.000	0.689
55.000	0.689
56.000	0.689
57.000	0.690
58.000	0.690
59.000	0.690
60.000	0.690

4. Formula 2

Kinetics Data Print Report

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1.000	0.627
2.000	0.626
3.000	0.626
4.000	0.626
5.000	0.625
6.000	0.624
7.000	0.624
8.000	0.623
9.000	0.622
10.000	0.622
11.000	0.621
12.000	0.621
13.000	0.621
14.000	0.622
15.000	0.622
16.000	0.621
17.000	0.621
18.000	0.621
19.000	0.620
20.000	0.621
21.000	0.620
22.000	0.620
23.000	0.619
24.000	0.619
25.000	0.619
26.000	0.620
27.000	0.619
28.000	0.619
29.000	0.619
30.000	0.619
31.000	0.619
32.000	0.619
33.000	0.619
34.000	0.619
35.000	0.618
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37.000	0.618
38.000	0.618
39.000	0.618
40.000	0.619
41.000	0.618
42.000	0.618
43.000	0.618
44.000	0.617
45.000	0.618
46.000	0.617
47.000	0.617
48.000	0.617
49.000	0.617
50.000	0.617

Time (Minute)	RawData ...
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52.000	0.617
53.000	0.617
54.000	0.617
55.000	0.617
56.000	0.617
57.000	0.617
58.000	0.617
59.000	0.617
60.000	0.617

5. Formula 3

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Time (Minute)	RawData ...	
0.000	0.682	
1.000	0.683	
2.000	0.682	
3.000	0.681	
4.000	0.682	
5.000	0.682	
6.000	0.682	
7.000	0.682	
8.000	0.682	
9.000	0.682	
10.000	0.683	
11.000	0.683	
12.000	0.683	
+ 2	13.000	0.684
14.000	0.684	
15.000	0.684	
16.000	0.684	
17.000	0.684	
18.000	0.684	
19.000	0.684	
20.000	0.684	
21.000	0.686	
22.000	0.685	
23.000	0.686	
24.000	0.686	
25.000	0.686	
26.000	0.686	
27.000	0.687	
28.000	0.687	
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30.000	0.688	
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33.000	0.688	
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35.000	0.689	
36.000	0.689	
37.000	0.689	
38.000	0.689	
39.000	0.690	
40.000	0.691	
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42.000	0.690	
43.000	0.691	
44.000	0.691	
45.000	0.691	
46.000	0.691	
47.000	0.692	
48.000	0.692	
49.000	0.692	
50.000	0.692	

p ment

Time (Minute)	RawData ...
51.000	0.692
52.000	0.692
53.000	0.693
54.000	0.693
55.000	0.693
56.000	0.693
57.000	0.694
58.000	0.693
59.000	0.694
60.000	0.694

6. Formula 4

Time (Minute)	RawData ...
0.000	0.644
1.000	0.643
2.000	0.643
3.000	0.642
4.000	0.642
5.000	0.643
6.000	0.643
7.000	0.643
8.000	0.643
9.000	0.643
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12.000	0.643
13.000	0.643
14.000	0.644
15.000	0.644
16.000	0.644
17.000	0.644
18.000	0.645
19.000	0.645
20.000	0.645
21.000	0.645
22.000	0.645
23.000	0.646
24.000	0.645
25.000	0.646
26.000	0.646
27.000	0.647
28.000	0.647
29.000	0.647
30.000	0.647
31.000	0.647
32.000	0.647
33.000	0.648
34.000	0.648
35.000	0.648
36.000	0.648
37.000	0.649
38.000	0.649
39.000	0.649
40.000	0.649
41.000	0.650
42.000	0.650
43.000	0.650
44.000	0.650
45.000	0.650
46.000	0.651
47.000	0.651
48.000	0.651
49.000	0.651
50.000	0.651

9 min

Time (Minute)	RawData ...
51.000	0.652
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53.000	0.652
54.000	0.652
55.000	0.653
56.000	0.652
57.000	0.653
58.000	0.653
59.000	0.653
60.000	0.653

7. Formula 5

Kinetics Data Print Report

12/16/2022 03:04:30 PM

Time (Minute)	RawData ...	
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3.000	0.596	
4.000	0.596	
5.000	0.596	
6.000	0.595	
7.000	0.596	
8.000	0.596	
9.000	0.596	
10.000	0.596	
11.000	0.595	
12.000	0.595	
13.000	0.595	
14.000	0.595	
15.000	0.595	
16.000	0.595	
17.000	0.595	
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19.000	0.595	
20.000	0.595	
21.000	0.595	
22.000	0.594	
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24.000	0.595	
25.000	0.595	
26.000	0.595	
27.000	0.595	
28.000	0.594	
29.000	0.594	
30.000	0.595	
31.000	0.595	
32.000	0.594	
33.000	0.595	
34.000	0.595	
35.000	0.595	
36.000	0.595	
37.000	0.595	
38.000	0.594	
39.000	0.595	
+2	40.000	0.595
41.000	0.595	
42.000	0.595	
43.000	0.595	
44.000	0.595	
45.000	0.595	
46.000	0.595	
47.000	0.595	
48.000	0.595	
49.000	0.595	
50.000	0.595	

Time (Minute)	RawData ...
51.000	0.595
52.000	0.595
53.000	0.595
54.000	0.595
55.000	0.595
56.000	0.595
57.000	0.595
58.000	0.595
59.000	0.595
60.000	0.595

8. Formula 6

Kinetics Data Print Report

12/20/2022 01:12:16 PM

Time (Minute)	RawData ...
0.000	0.757
1.000	0.757
2.000	0.755
3.000	0.754
4.000	0.755
5.000	0.754
6.000	0.754
7.000	0.754
8.000	0.754
9.000	0.755
10.000	0.755
11.000	0.755
12.000	0.755
13.000	0.755
14.000	0.755
15.000	0.755
16.000	0.756
17.000	0.756
18.000	0.756
19.000	0.756
20.000	0.757
21.000	0.757
22.000	0.757
23.000	0.757
24.000	0.757
25.000	0.757
26.000	0.757
27.000	0.757
28.000	0.758
29.000	0.758
30.000	0.758
31.000	0.758
32.000	0.758
33.000	0.759
34.000	0.759
35.000	0.759
36.000	0.759
37.000	0.759
38.000	0.759
39.000	0.759
± 40.000	0.760
41.000	0.760
42.000	0.760
43.000	0.760
44.000	0.760
45.000	0.760
46.000	0.760
47.000	0.760
48.000	0.760
49.000	0.761
50.000	0.761

Time (Minute)	RawData ...
51.000	0.761
52.000	0.761
53.000	0.761
54.000	0.762
55.000	0.762
56.000	0.762
57.000	0.762
58.000	0.762
59.000	0.762
60.000	0.762

9. Formula 7

Kinetics Data Print Report

12/19/2022 10:53:23 AM

Time (Minute)	RawData ...
0.000	0.454
1.000	0.450
2.000	0.450
3.000	0.449
4.000	0.447
5.000	0.448
6.000	0.447
7.000	0.447
8.000	0.448
9.000	0.446
10.000	0.448
11.000	0.446
12.000	0.446
13.000	0.448
14.000	0.448
15.000	0.449
16.000	0.449
17.000	0.449
18.000	0.450
19.000	0.452
20.000	0.452
21.000	0.453
22.000	0.453
23.000	0.453
24.000	0.454
25.000	0.455
26.000	0.458
27.000	0.459
28.000	0.459
29.000	0.460
30.000	0.459
31.000	0.460
32.000	0.462
33.000	0.462
34.000	0.464
35.000	0.465
36.000	0.465
37.000	0.466
38.000	0.467
39.000	0.468
40.000	0.468
41.000	0.471
42.000	0.470
43.000	0.471
44.000	0.472
45.000	0.473
46.000	0.474
47.000	0.476
48.000	0.477
49.000	0.478
50.000	0.477

Time (Minute)	RawData ...
51.000	0.478
52.000	0.479
53.000	0.480
54.000	0.482
55.000	0.482
56.000	0.482
57.000	0.483
58.000	0.484
59.000	0.485
60.000	0.485

Lampiran 13. Hasil pngujian aktivitas antioksidan Vitamin C, ekstrak biji kopi, lotion formula 1, 2, 3, 4, 5, 6, dan 7.

1. Vitamin C

Absorbansi blanko (DPPH) = 0,619

Vitamin C			
Replikasi 1			
kons (ppm)	DPPH	absorbansi	% inhibisi
2	0,619	0,587	5,169628433
4	0,619	0,546	11,79321486
6	0,619	0,449	27,46365105
8	0,619	0,41	33,7641357
10	0,619	0,301	51,37318255

$$a = -8,400646204$$

$$b = 5,718901454$$

$$r = 0,987367996$$

Vitamin C			
Replikasi 2			
kons (ppm)	DPPH	absorbansi	% inhibisi
2	0,619	0,588	5,008077544
4	0,619	0,544	12,11631664
6	0,619	0,447	27,78675283
8	0,619	0,412	33,44103393
10	0,619	0,303	51,05008078

$$a = -8,142164782$$

$$b = 5,670436187$$

$$r = 0,987315406$$

Vitamin C			
Replikasi 3			
kons (ppm)	DPPH	absorbansi	% inhibisi
2	0,619	0,585	5,49273021
4	0,619	0,548	11,47011309
6	0,619	0,448	27,62520194
8	0,619	0,41	33,7641357
10	0,619	0,303	51,05008078

$$a = -8,142164782$$

$$b = 5,670436187$$

$$r = 0,986340372$$

2. Ekstrak biji kopi

Ekstrak			
Replikasi 1			
kons (ppm)	DPPH	absorbansi	% inhibisi
10	0,619	0,598	3,392568659
20	0,619	0,532	14,0549273
30	0,619	0,487	21,32471729
40	0,619	0,432	30,21001616
50	0,619	0,308	50,24232633

$$a = -9,1114701$$

$$b = 1,09854604$$

$$r = 0,97950582$$

Ekstrak			
Replikasi 2			
kons (ppm)	DPPH	absorbansi	% inhibisi
10	0,619	0,595	3,877221325
20	0,619	0,534	13,73182553
30	0,619	0,488	21,1631664
40	0,619	0,432	30,21001616
50	0,619	0,305	50,726979

$$a = -9,1114701$$

$$b = 1,10177706$$

$$r = 0,97717364$$

Ekstrak			
Replikasi 3			
kons (ppm)	DPPH	absorbansi	% inhibisi
10	0,619	0,597	3,554119548
20	0,619	0,531	14,21647819
30	0,619	0,485	21,64781906
40	0,619	0,436	29,5638126
50	0,619	0,303	51,05008078

$$a = -9,095315$$

$$b = 1,10339257$$

$$r = 0,97452966$$

3. Formula 1 kontrol (+)

Formula 1 kontrol (+)			
Repikasi 1			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,564	8,885298869
70	0,619	0,497	19,7092084
80	0,619	0,485	21,64781906
90	0,619	0,376	39,25686591
100	0,619	0,299	51,69628433

$$a = -55,8966$$

$$b = 1,051696$$

$$r = 0,975465$$

Formula 1 kontrol (+)			
Replikasi 2			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,567	8,400646204
70	0,619	0,494	20,19386107
80	0,619	0,483	21,97092084
90	0,619	0,376	39,25686591
100	0,619	0,3	51,53473344

$$a = -55,9935$$

$$b = 1,053312$$

$$r = 0,97728$$

Formula 1 kontrol (+)			
Replikasi 3			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,562	9,208400646
70	0,619	0,499	19,38610662
80	0,619	0,486	21,48626817
90	0,619	0,372	39,90306947
100	0,619	0,295	52,34248788

$$a = -56,9628$$

$$b = 1,067851$$

$$r = 0,973631$$

4. Formula 2

Formula 2			
Replikasi 1			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,598	3,392568659
70	0,619	0,574	7,269789984
80	0,619	0,558	9,8546042
90	0,619	0,532	14,0549273
100	0,619	0,519	16,15508885

$$a = -15,7027$$

$$b = 0,323102$$

$$r = 0,995431$$

Formula 2			
Replikasi 2			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,597	3,554119548
70	0,619	0,572	7,592891761
80	0,619	0,559	9,693053312
90	0,619	0,532	14,0549273
100	0,619	0,518	16,31663974

$$a = -15,3473$$

$$b = 0,319871$$

$$r = 0,994335$$

Formula 3			
Replikasi 3			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,6	3,069466882
70	0,619	0,576	6,946688207
80	0,619	0,556	10,17770598
90	0,619	0,534	13,73182553
100	0,619	0,52	15,99353796

$$a = -16,1228$$

$$b = 0,326333$$

$$r = 0,996538$$

5. Formula 3

Formula 3			
Replikasi 1			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,587	5,169628433
70	0,619	0,57	7,915993538
80	0,619	0,559	9,693053312
90	0,619	0,542	12,43941842
100	0,619	0,516	16,63974152

$$a = -11,5994$$

$$b = 0,274637$$

$$r = 0,988974$$

Formula 3			
Replikasi 2			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,586	5,331179321
70	0,619	0,569	8,077544426
80	0,619	0,557	10,01615509
90	0,619	0,541	12,60096931
100	0,619	0,514	16,9628433

$$a = -11,6317$$

$$b = 0,277868$$

$$r = 0,988898$$

Formula 3			
Replikasi 3			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,584	5,654281099
70	0,619	0,566	8,562197092
80	0,619	0,554	10,50080775
90	0,619	0,54	12,76252019
100	0,619	0,512	17,28594507

$$a = -11,0178$$

$$b = 0,274637$$

$$r = 0,987305$$

6. Formula 4

Formula 4			
Replikasi 1			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,612	1,13085622
70	0,619	0,595	3,877221325
80	0,619	0,577	6,785137318
90	0,619	0,551	10,98546042
100	0,619	0,539	12,92407108

$$a = -17,4152$$

$$b = 0,306947$$

$$r = 0,995215$$

Formula 4			
Replikasi 2			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,613	0,969305331
70	0,619	0,593	4,200323102
80	0,619	0,578	6,62358643
90	0,619	0,553	10,66235864
100	0,619	0,537	13,24717286

$$a = -17,6737$$

$$b = 0,310178$$

$$r = 0,997514$$

Formula 4			
Replikasi 3			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,61	1,453957997
70	0,619	0,596	3,715670436
80	0,619	0,574	7,269789984
90	0,619	0,551	10,98546042
100	0,619	0,538	13,08562197

$$a = -17,1244$$

$$b = 0,305331$$

$$r = 0,995454$$

7. Formula 5

Formula 5			
Replikasi 1			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,598	3,392568659
70	0,619	0,575	7,108239095
80	0,619	0,528	14,70113086
90	0,619	0,453	26,8174475
100	0,619	0,307	50,40387722

$$a = -70,5008$$

$$b = 1,137318$$

$$r = 0,947837$$

Formula 5			
Replikasi 2			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,596	3,715670436
70	0,619	0,573	7,431340872
80	0,619	0,526	15,02423263
90	0,619	0,456	26,33279483
100	0,619	0,305	50,726979

$$a = -69,6931$$

$$b = 1,129241$$

$$r = 1,129241$$

Formula 5			
Replikasi 3			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,594	4,038772213
70	0,619	0,576	6,946688207
80	0,619	0,528	14,70113086
90	0,619	0,459	25,84814216
100	0,619	0,302	51,21163166

$$a = -70,0485$$

$$b = 1,132472$$

$$r = 0,937213$$

8. Formula 6

Formula 6			
Replikasi 1			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,579	6,462035541
70	0,619	0,553	10,66235864
80	0,619	0,521	15,83198708
90	0,619	0,463	25,20193861
100	0,619	0,303	51,05008078

$$a = -61,1309$$

$$b = 1,037157$$

$$r = 0,923222$$

Formula 6			
Replikasi 2			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,576	6,946688207
70	0,619	0,552	10,82390953
80	0,619	0,523	15,5088853
90	0,619	0,463	25,20193861
100	0,619	0,306	50,56542811

$$a = -59,483$$

$$b = 1,016155$$

$$r = 0,920098$$

Formula 6			
Replikasi 2			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,574	7,269789984
70	0,619	0,556	10,17770598
80	0,619	0,526	15,02423263
90	0,619	0,467	24,55573506
100	0,619	0,308	50,24232633

$$a = -58,8045$$

$$b = 1,003231$$

$$r = 0,912754$$

9. Formula 7

Formula 7			
Replikasi 1			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,601	2,907915994
70	0,619	0,576	6,946688207
80	0,619	0,512	17,28594507
90	0,619	0,485	21,64781906
100	0,619	0,299	51,69628433

$$a = -69,7254$$

$$b = 1,122779$$

$$r = 0,923787$$

Formula 7			
Replikasi 2			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,602	2,746365105
70	0,619	0,574	7,269789984
80	0,619	0,512	17,28594507
90	0,619	0,487	21,32471729
100	0,619	0,298	51,85783522

$$a = -69,7254$$

$$b = 1,122779$$

$$r = 0,921754$$

Formula 7			
Replikasi 3			
kons (ppm)	DPPH	absorbansi	% inhibisi
60	0,619	0,599	3,231017771
70	0,619	0,573	7,431340872
80	0,619	0,514	16,9628433
90	0,619	0,486	21,48626817
100	0,619	0,3	51,53473344

$$a = -68,4006$$

$$b = 1,106624$$

$$r = 0,920602$$

Lampiran 14. Data SPSS uji mutu fisik pH

Tests of Normality							
	Formula	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
pH	Formula 1 kontrol (+)	.177	3	.	1.000	3	.962
	Formula basis 2	.175	3	.	1.000	3	1.000
	Formula basis 3	.256	3	.	.962	3	.623
	Formula basis 4	.184	3	.	.999	3	.927
	Formula ekstrak 5	.229	3	.	.981	3	.739
	Formula ekstrak 6	.178	3	.	.999	3	.956
	Formula ekstrak 7	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

Test of Homogeneity of Variances						
		Levene		df1	df2	Sig.
		Statistic				
pH	Based on Mean	2.112		6	14	.117
	Based on Median	1.777		6	14	.176
	Based on Median and with adjusted df	1.777		6	4.767	.278
	Based on trimmed mean	2.094		6	14	.119

ANOVA						
		Sum of Squares		Mean Square	F	Sig.
			df			
pH	Between Groups	2.710	6	.452	5.139	.006
	Within Groups	1.231	14	.088		
	Total	3.941	20			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: pH

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula 1 kontrol (+)	Formula basis 2	-.08333	.24209	1.000	-.9100	.7433
	Formula basis 3	-.25333	.24209	.934	-1.0800	.5733
	Formula basis 4	-.85333	.24209	.041	-1.6800	-.0267
	Formula ekstrak 5	-.35667	.24209	.755	-1.1833	.4700
	Formula ekstrak 6	-.46667	.24209	.495	-1.2933	.3600
	Formula ekstrak 7	.37667	.24209	.710	-.4500	1.2033
Formula basis 2	Formula 1 kontrol (+)	.08333	.24209	1.000	-.7433	.9100
	Formula basis 3	-.17000	.24209	.990	-.9967	.6567
	Formula basis 4	-.77000	.24209	.076	-1.5967	.0567
	Formula ekstrak 5	-.27333	.24209	.909	-1.1000	.5533
	Formula ekstrak 6	-.38333	.24209	.694	-1.2100	.4433
	Formula ekstrak 7	.46000	.24209	.511	-.3667	1.2867
Formula basis 3	Formula 1 kontrol (+)	.25333	.24209	.934	-.5733	1.0800
	Formula basis 2	.17000	.24209	.990	-.6567	.9967
	Formula basis 4	-.60000	.24209	.238	-1.4267	.2267
	Formula ekstrak 5	-.10333	.24209	.999	-.9300	.7233
	Formula ekstrak 6	-.21333	.24209	.970	-1.0400	.6133
	Formula ekstrak 7	.63000	.24209	.197	-.1967	1.4567
Formula basis 4	Formula 1 kontrol (+)	.85333	.24209	.041	.0267	1.6800
	Formula basis 2	.77000	.24209	.076	-.0567	1.5967
	Formula basis 3	.60000	.24209	.238	-.2267	1.4267
	Formula ekstrak 5	.49667	.24209	.428	-.3300	1.3233
	Formula ekstrak 6	.38667	.24209	.686	-.4400	1.2133
	Formula ekstrak 7	1.23000	.24209	.002	.4033	2.0567
Formula ekstrak 5	Formula 1 kontrol (+)	.35667	.24209	.755	-.4700	1.1833
	Formula basis 2	.27333	.24209	.909	-.5533	1.1000
	Formula basis 3	.10333	.24209	.999	-.7233	.9300
	Formula basis 4	-.49667	.24209	.428	-1.3233	.3300
	Formula ekstrak 6	-.11000	.24209	.999	-.9367	.7167
	Formula ekstrak 7	.73333	.24209	.098	-.0933	1.5600
Formula ekstrak 6	Formula 1 kontrol (+)	.46667	.24209	.495	-.3600	1.2933
	Formula basis 2	.38333	.24209	.694	-.4433	1.2100
	Formula basis 3	.21333	.24209	.970	-.6133	1.0400
	Formula basis 4	-.38667	.24209	.686	-1.2133	.4400
	Formula ekstrak 5	.11000	.24209	.999	-.7167	.9367
	Formula ekstrak 7	.84333	.24209	.044	.0167	1.6700
Formula ekstrak 7	Formula 1 kontrol (+)	-.37667	.24209	.710	-1.2033	.4500
	Formula basis 2	-.46000	.24209	.511	-1.2867	.3667
	Formula basis 3	-.63000	.24209	.197	-1.4567	.1967
	Formula basis 4	-1.23000	.24209	.002	-2.0567	-.4033
	Formula ekstrak 5	-.73333	.24209	.098	-1.5600	.0933
	Formula ekstrak 6	-.84333	.24209	.044	-1.6700	-.0167

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

Homogeneous Subsets

pH

Tukey HSD^a

Formula	N	Subset for alpha = 0.05		
		1	2	3
Formula ekstrak 7	3	6.1200		
Formula 1 kontrol (+)	3	6.4967	6.4967	
Formula basis 2	3	6.5800	6.5800	6.5800
Formula basis 3	3	6.7500	6.7500	6.7500
Formula ekstrak 5	3	6.8533	6.8533	6.8533
Formula ekstrak 6	3		6.9633	6.9633
Formula basis 4	3			7.3500
Sig.		.098	.495	.076

Means for groups in homogeneous subsets are displayed.

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

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		21
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.30221125
Most Extreme Differences	Absolute	.162
	Positive	.131
	Negative	-.162
Test Statistic		.162
Asymp. Sig. (2-tailed)		.154 ^c

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

T-Test

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)	
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
				Lower	Upper				
Pair 1	pHSebelum - pHsesudah	.05476	.52498	.11456	-.29373	.18421	-.478	20	.638

Lampiran 15. Data SPSS Daya Sebar

Tests of Normality

	Formula	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Dayasebar	Formula 1	.292	3	.	.923	3	.463
	Formula 2	.276	3	.	.942	3	.537
	Formula 3	.304	3	.	.907	3	.407
	Formula 4	.219	3	.	.987	3	.780
	Formula 5	.253	3	.	.964	3	.637
	Formula 6	.175	3	.	1.000	3	1.000
	Formula 7	.253	3	.	.964	3	.637

a. Lilliefors Significance Correction

Oneway

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Dayasebar	Based on Mean	.801	6	14	.585
	Based on Median	.171	6	14	.980
	Based on Median and with adjusted df	.171	6	9.699	.979
	Based on trimmed mean	.734	6	14	.631

ANOVA

Dayasebar

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.654	6	.442	379.161	.000
Within Groups	.016	14	.001		
Total	2.670	20			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Dayasebar

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula 1	Formula 2	.67333*	.02789	.000	.5781	.7686
	Formula 3	.39667*	.02789	.000	.3014	.4919
	Formula 4	-.26000*	.02789	.000	-.3552	-.1648
	Formula 5	.12000*	.02789	.010	.0248	.2152
	Formula 6	-.34667*	.02789	.000	-.4419	-.2514
	Formula 7	-.29000*	.02789	.000	-.3852	-.1948
Formula 2	Formula 1	-.67333*	.02789	.000	-.7686	-.5781
	Formula 3	-.27667*	.02789	.000	-.3719	-.1814
	Formula 4	-.93333*	.02789	.000	-1.0286	-.8381
	Formula 5	-.55333*	.02789	.000	-.6486	-.4581
	Formula 6	-1.02000*	.02789	.000	-1.1152	-.9248
	Formula 7	-.96333*	.02789	.000	-1.0586	-.8681
Formula 3	Formula 1	-.39667*	.02789	.000	-.4919	-.3014
	Formula 2	.27667*	.02789	.000	.1814	.3719
	Formula 4	-.65667*	.02789	.000	-.7519	-.5614
	Formula 5	-.27667*	.02789	.000	-.3719	-.1814
	Formula 6	-.74333*	.02789	.000	-.8386	-.6481
	Formula 7	-.68667*	.02789	.000	-.7819	-.5914
Formula 4	Formula 1	.26000*	.02789	.000	.1648	.3552
	Formula 2	.93333*	.02789	.000	.8381	1.0286
	Formula 3	.65667*	.02789	.000	.5614	.7519
	Formula 5	.38000*	.02789	.000	.2848	.4752
	Formula 6	-.08667	.02789	.086	-.1819	.0086
	Formula 7	-.03000	.02789	.925	-.1252	.0652
Formula 5	Formula 1	-.12000*	.02789	.010	-.2152	-.0248
	Formula 2	.55333*	.02789	.000	.4581	.6486
	Formula 3	.27667*	.02789	.000	.1814	.3719
	Formula 4	-.38000*	.02789	.000	-.4752	-.2848
	Formula 6	-.46667*	.02789	.000	-.5619	-.3714
	Formula 7	-.41000*	.02789	.000	-.5052	-.3148
Formula 6	Formula 1	.34667*	.02789	.000	.2514	.4419
	Formula 2	1.02000*	.02789	.000	.9248	1.1152
	Formula 3	.74333*	.02789	.000	.6481	.8386
	Formula 4	.08667	.02789	.086	-.0086	.1819
	Formula 5	.46667*	.02789	.000	.3714	.5619
	Formula 7	.05667	.02789	.438	-.0386	.1519
Formula 7	Formula 1	.29000*	.02789	.000	.1948	.3852
	Formula 2	.96333*	.02789	.000	.8681	1.0586
	Formula 3	.68667*	.02789	.000	.5914	.7819
	Formula 4	.03000	.02789	.925	-.0652	.1252
	Formula 5	.41000*	.02789	.000	.3148	.5052
	Formula 6	-.05667	.02789	.438	-.1519	.0386

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

Homogeneous Subsets

Dayasebar

Tukey HSD^a

Formula	N	Subset for alpha = 0.05				
		1	2	3	4	5
Formula 2	3	4.2100				
Formula 3	3		4.4867			
Formula 5	3			4.7633		
Formula 1	3				4.8833	
Formula 4	3					5.1433
Formula 7	3					5.1733
Formula 6	3					5.2300
Sig.		1.000	1.000	1.000	1.000	.086

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 16. Data SPSS uji viskositas

Tests of Normality							
	Formula	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Viskositas	Formula 1	.321	3	.	.881	3	.328
	Formula 2	.299	3	.	.915	3	.433
	Formula 3	.373	3	.	.779	3	.066
	Formula 4	.248	3	.	.968	3	.657
	Formula 5	.308	3	.	.902	3	.391
	Formula 6	.176	3	.	1.000	3	.985
	Formula 7	.223	3	.	.985	3	.764

a. Lilliefors Significance Correction

ANOVA

Viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1507918.952	6	251319.825	61.497	.000
Within Groups	57214.000	14	4086.714		
Total	1565132.952	20			

Post Hoc Tests

Multiple Comparisons						
Dependent Variable: Viskositas						
Tukey HSD						
(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula 1	Formula 2	-612.000*	52.197	.000	-790.23	-433.77
	Formula 3	-99.333	52.197	.509	-277.56	78.90
	Formula 4	-268.333*	52.197	.002	-446.56	-90.10
	Formula 5	344.000*	52.197	.000	165.77	522.23
	Formula 6	-59.000	52.197	.908	-237.23	119.23
	Formula 7	-40.667	52.197	.983	-218.90	137.56
Formula 2	Formula 1	612.000*	52.197	.000	433.77	790.23
	Formula 3	512.667*	52.197	.000	334.44	690.90
	Formula 4	343.667*	52.197	.000	165.44	521.90
	Formula 5	956.000*	52.197	.000	777.77	1134.23
	Formula 6	553.000*	52.197	.000	374.77	731.23
	Formula 7	571.333	52.197	.000	393.10	749.56
Formula 3	Formula 1	99.333	52.197	.509	-78.90	277.56
	Formula 2	-512.667*	52.197	.000	-690.90	-334.44
	Formula 4	-169.000	52.197	.068	-347.23	9.23
	Formula 5	443.333*	52.197	.000	265.10	621.56
	Formula 6	40.333	52.197	.984	-137.90	218.56
	Formula 7	58.667	52.197	.910	-119.56	236.90
Formula 4	Formula 1	268.333*	52.197	.002	90.10	446.56
	Formula 2	-343.667*	52.197	.000	-521.90	-165.44
	Formula 3	169.000	52.197	.068	-9.23	347.23
	Formula 5	612.333*	52.197	.000	434.10	790.56
	Formula 6	209.333*	52.197	.017	31.10	387.56
	Formula 7	227.667*	52.197	.009	49.44	405.90
Formula 5	Formula 1	-344.000*	52.197	.000	-522.23	-165.77
	Formula 2	-956.000*	52.197	.000	-1134.23	-777.77
	Formula 3	-443.333	52.197	.000	-621.56	-265.10
	Formula 4	-612.333*	52.197	.000	-790.56	-434.10
	Formula 6	-403.000*	52.197	.000	-581.23	-224.77
	Formula 7	-384.667*	52.197	.000	-562.90	-206.44
Formula 6	Formula 1	59.000	52.197	.908	-119.23	237.23
	Formula 2	-553.000*	52.197	.000	-731.23	-374.77
	Formula 3	-40.333	52.197	.984	-218.56	137.90
	Formula 4	-209.333*	52.197	.017	-387.56	-31.10
	Formula 5	403.000*	52.197	.000	224.77	581.23
	Formula 7	18.333	52.197	1.000	-159.90	196.56
Formula 7	Formula 1	40.667	52.197	.983	-137.56	218.90
	Formula 2	-571.333*	52.197	.000	-749.56	-393.10
	Formula 3	-58.667	52.197	.910	-236.90	119.56
	Formula 4	-227.667*	52.197	.009	-405.90	-49.44
	Formula 5	384.667*	52.197	.000	206.44	562.90
	Formula 6	-18.333	52.197	1.000	-196.56	159.90

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

Homogeneous Subsets

Viskositas

Tukey HSD^a

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Formula 5	3	2179.00			
Formula 1	3		2523.00		
Formula 7	3		2563.67		
Formula 6	3		2582.00		
Formula 3	3		2622.33	2622.33	
Formula 4	3			2791.33	
Formula 2	3				3135.00
Sig.		1.000	.509	.068	1.000

Means for groups in homogeneous subsets are displayed.

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

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		21
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	201.09111087
Most Extreme Differences	Absolute	.126
	Positive	.126
	Negative	-.108
Test Statistic		.126
Asymp. Sig. (2-tailed)		.200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

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

T-Test

Paired Samples Test

		Paired Differences						t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
					Lower	Upper				
Pair 1	ViskositasSebelum - ViskositasSesudah	273.571	345.619	75.420	116.248	430.895	3.627	20	.002	

Lampiran 17. Uji SPSS daya Lekat

Tests of Normality							
	Formula	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Dayalekat	Formula 1	.292	3	.	.923	3	.463
	Formula 2	.175	3	.	1.000	3	1.000
	Formula 3	.219	3	.	.987	3	.780
	Formula 4	.219	3	.	.987	3	.780
	Formula 5	.175	3	.	1.000	3	1.000
	Formula 6	.292	3	.	.923	3	.463
	Formula 7	.253	3	.	.964	3	.637

a. Lilliefors Significance Correction

Oneway

Test of Homogeneity of Variances

		Levene			
		Statistic	df1	df2	Sig.
Dayalekat	Based on Mean	.929	6	14	.504
	Based on Median	.415	6	14	.857
	Based on Median and with adjusted df	.415	6	9.135	.852
	Based on trimmed mean	.890	6	14	.528

ANOVA

Dayalekat

	Sum of				
	Squares	df	Mean Square	F	Sig.
Between Groups	.730	6	.122	140.410	.000
Within Groups	.012	14	.001		
Total	.742	20			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Dayalekat
Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula 1	Formula 2	.23333*	.02404	.000	.1513	.3154
	Formula 3	-.22333*	.02404	.000	-.3054	-.1413
	Formula 4	.27667*	.02404	.000	.1946	.3587
	Formula 5	-.03667	.02404	.727	-.1187	.0454
	Formula 6	.02000	.02404	.977	-.0621	.1021
	Formula 7	.33667*	.02404	.000	.2546	.4187
Formula 2	Formula 1	-.23333*	.02404	.000	-.3154	-.1513
	Formula 3	-.45667*	.02404	.000	-.5387	-.3746
	Formula 4	.04333	.02404	.567	-.0387	.1254
	Formula 5	-.27000*	.02404	.000	-.3521	-.1879
	Formula 6	-.21333	.02404	.000	-.2954	-.1313
	Formula 7	.10333	.02404	.010	.0213	.1854
Formula 3	Formula 1	.22333*	.02404	.000	.1413	.3054
	Formula 2	.45667*	.02404	.000	.3746	.5387
	Formula 4	.50000	.02404	.000	.4179	.5821
	Formula 5	.18667*	.02404	.000	.1046	.2687
	Formula 6	.24333*	.02404	.000	.1613	.3254
	Formula 7	.56000*	.02404	.000	.4779	.6421
Formula 4	Formula 1	-.27667*	.02404	.000	-.3587	-.1946
	Formula 2	-.04333	.02404	.567	-.1254	.0387
	Formula 3	-.50000*	.02404	.000	-.5821	-.4179
	Formula 5	-.31333*	.02404	.000	-.3954	-.2313
	Formula 6	-.25667*	.02404	.000	-.3387	-.1746
	Formula 7	.06000	.02404	.232	-.0221	.1421
Formula 5	Formula 1	.03667	.02404	.727	-.0454	.1187
	Formula 2	.27000*	.02404	.000	.1879	.3521
	Formula 3	-.18667*	.02404	.000	-.2687	-.1046
	Formula 4	.31333	.02404	.000	.2313	.3954
	Formula 6	.05667	.02404	.284	-.0254	.1387
	Formula 7	.37333*	.02404	.000	.2913	.4554
Formula 6	Formula 1	-.02000	.02404	.977	-.1021	.0621
	Formula 2	.21333*	.02404	.000	.1313	.2954
	Formula 3	-.24333*	.02404	.000	-.3254	-.1613
	Formula 4	.25667*	.02404	.000	.1746	.3387
	Formula 5	-.05667	.02404	.284	-.1387	.0254
	Formula 7	.31667*	.02404	.000	.2346	.3987
Formula 7	Formula 1	-.33667*	.02404	.000	-.4187	-.2546
	Formula 2	-.10333*	.02404	.010	-.1854	-.0213
	Formula 3	-.56000*	.02404	.000	-.6421	-.4779
	Formula 4	-.06000	.02404	.232	-.1421	.0221
	Formula 5	-.37333*	.02404	.000	-.4554	-.2913
	Formula 6	-.31667*	.02404	.000	-.3987	-.2346

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

Homogeneous Subsets

Dayalekat

Tukey HSD^a

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Formula 7	3	1.2167			
Formula 4	3	1.2767	1.2767		
Formula 2	3		1.3200		
Formula 6	3			1.5333	
Formula 1	3			1.5533	
Formula 5	3			1.5900	
Formula 3	3				1.7767
Sig.		.232	.567	.284	1.000

Means for groups in homogeneous subsets are displayed.

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

Lampiran 18. Uji SPSS Perbandingan Antioksidan

Tests of Normality

	formula	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
IC50	Formula 5	.241	3	.	.974	3	.690
	Formula 6	.356	3	.	.818	3	.157
	Formula 7	.177	3	.	1.000	3	.964

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

IC50

Levene Statistic	df1	df2	Sig.
1.318	2	6	.335

ANOVA

IC50

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.741	2	.371	1.823	.241
Within Groups	1.220	6	.203		
Total	1.962	8			