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Lampiran 1. Hasil identifikasi tanaman secang (*Caesalpinia sappan* L.)


UNIVERSITAS SETIA BUDI

UPT-LABORATORIUM
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Nomor : 98/DET/UPT-LAB/04.12.2020
Hal : Hasil determinasi tumbuhan
Lamp. : -

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Nama Sampel : *Caesalpinia sappan*, L

HASIL DETERMINASI TUMBUHAN

Klasifikasi

Kingdom	: Plantae
Super Divisi	: Spermatophyta
Divisi	: Magnoliophyta
Kelas	: Magnoliopsida/Dicotyledoneae
Ordo	: Fabales
Famili	: Caesalpiniaceae
Genus	: <i>Caesalpinia</i>
Species	: <i>Caesalpinia sappan</i> , L

Hasil Determinasi menurut C.A. Backer & R.C. Bakhuizen van den Brink Jr. (1963) dan She *et al.* (2005); Steenis, C.G.G.J.V, Bloembergen, H, Eyma, P.J. 1992 :

1b – 2b – 3b – 4b – 12b – 13b – 14a – 15b - Familia 106. Caesalpiniaceae. 1a – 2b – 3b – 4a – 5b – 7b. genus 28. *Caesalpinia* – 1a – 2b – 3b – 4a – 5b – 7b -8a. *Caesalpinia sappan*, L

Deskripsi:

- Habitus : Habitus berupa pohon atau perdu dengan tinggi 5-10 m.
- Batang : Batang kasar dengan duri tersebar. Ranting-ranting biasanya dengan duri-duri yang melengkung ke bawah. Ranting muda dan kuncup berambut halus kecekelatan
- Daun : Daun majemuk menyirip ganda, Tulang daun utama sepanjang 25-40 cm; dengan 9-14 pasang tulang daun samping. Anak daun 10-20 pasang di tiap tulang daun samping, berhadapan, duduk atau hampur duduk, bentuk lonjong, 10-25 × 3-11 mm, pangkal romping miring, dan ujung melekok atau membundar, bertepi rata, lokos atau berambut pendek jarang-jarang.
- Bunga : Bunga majemuk dalam malai di ujung batang atau di ketiak atas, panjang 10-40 cm; daun pelindung 5-12 × 2-5 mm, berambut, lekas rontok; tangkai bunga (*pedicels*) sepanjang 15-20 mm. Warna bunga kuning, berbilangan-5; kelopak gundul, taju kelopak 7-10 × 4 mm; mahkota berambut balig, 9-11,5 × 6-10 mm, yang teratas berukuran paling kecil, berkuku lk. 5 mm; tangkai sari lk. 15 mm, putik lk. 18 mm.
- Buah : Buah polong bentuk lonjong atau jorong senjang (asimetris), 6-10 × 3-4 cm, ujung seperti paruh, berisi 2-4 biji, hijau kekuningan menjadi cokelat kemerahan jika masak.
- Biji : Biji bulat panjang (elipsoida), 15-18 mm × 8-11 mm, cokelat hitam.
- Akar : Akar tunggang.

Kepala UPT-LAB
Universitas Setia Budi



Asik Gunawan, Amdk

Surakarta, 4 Desember 2020

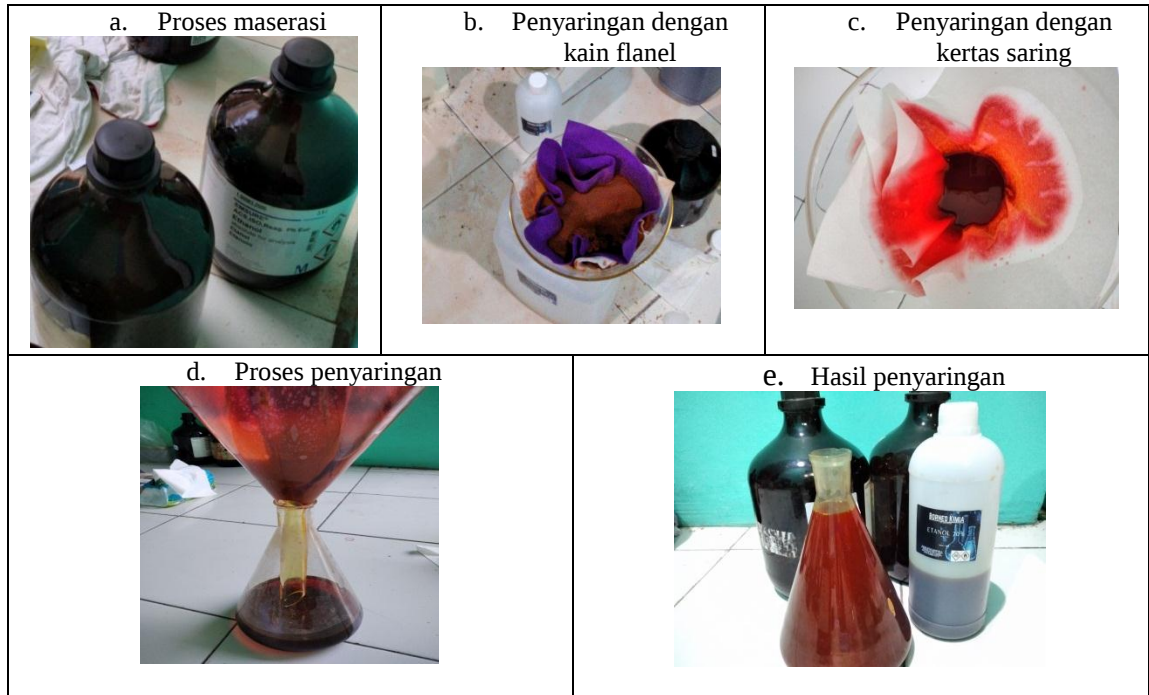
Penanggung jawab
Determinasi Tumbuhan

Dra. Dewi Sulistyawati. M.Sc.

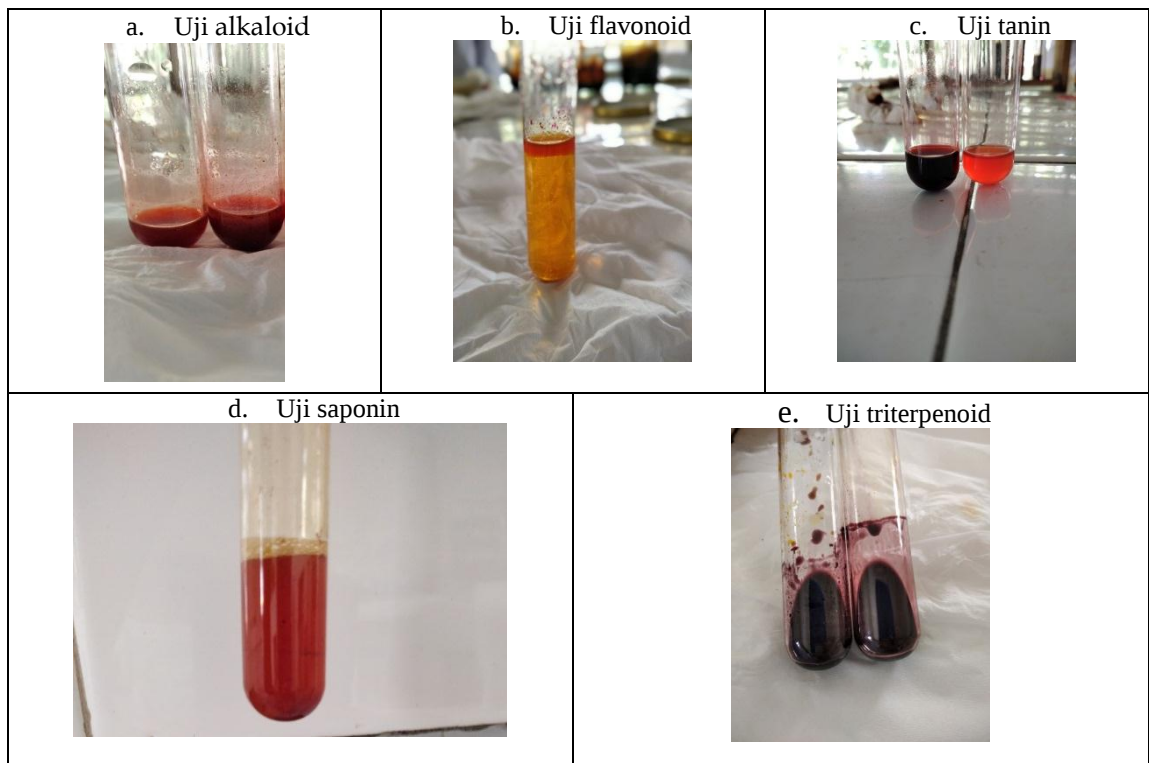
Lampiran 2. Gambar alat dan bahan penelitian

a. Serutan kayu secang 	b. Carbopol 	c. Propilen glikol 
d. TEA 	e. Aquadest 	f. Ekstrak 
g. Sterling Bidwell 	h. Alat uji daya sebar 	i. Moisture balance 

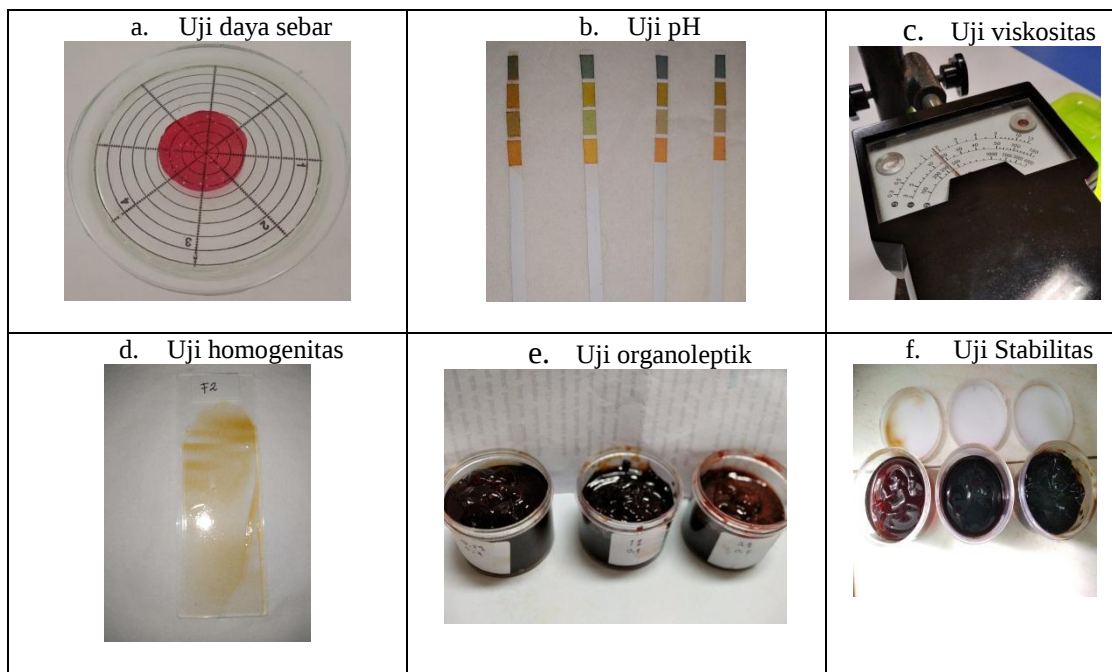
Lampiran 3. Gambar proses ekstraksi



Lampiran 4. Gambar proses pengujian kandungan senyawa kimia ekstrak kayu secang



Lampiran 5. Gambar proses pengujian sifat fisik serum ekstrak kayu secang



Lampiran 6. Data hasil pengujian sifat fisik serum ekstrak secang

Daya sebar

Formula	Hari ke-	Beban (gram)	Diameter daya sebar				±SD
			R1	R2	R3	Rata-rata	
1	1	0	4,00	4,10	3,90	4,00	0,100
		50	4,40	4,00	4,60	4,33	0,306
		100	7,00	6,80	5,70	6,50	0,700
		150	6,40	6,80	6,70	6,63	0,208
	28	0	4,10	4,80	3,50	4,13	0,651
		50	4,30	4,50	4,30	4,36	0,115
		100	6,80	6,80	5,80	6,46	0,577
		150	7,40	7,20	5,70	6,76	0,929
2	1	0	4,50	4,40	4,60	4,50	0,100
		50	4,80	4,40	4,70	4,63	0,208
		100	6,60	6,30	6,0	6,60	0,300
		150	6,60	6,40	7,40	6,80	0,529
	28	0	4,50	4,80	4,30	4,53	0,252
		50	4,50	4,60	5,00	4,70	0,265
		100	6,90	6,50	6,60	6,67	0,208

		150	6,90	6,10	7,70	6,90	0,800
3	1	0	4,40	4,20	5,20	4,60	0,529
		50	4,80	4,60	5,50	4,96	0,473
		100	6,40	6,20	6,90	6,50	0,361
		150	6,80	6,60	6,90	6,76	0,153
	28	0	4,60	4,80	4,50	4,63	0,153
		50	6,00	6,60	5,40	6,00	0,600
		100	6,60	6,90	6,50	6,67	0,208
		150	7,00	7,10	6,40	6,83	0,379
4	1	0	4,40	4,60	5,00	4,67	0,306
		50	4,90	4,70	4,70	4,76	0,115
		100	6,20	6,00	5,80	6,00	0,200
		150	6,60	6,50	6,40	6,50	0,100
	28	0	5,00	4,30	4,30	4,53	0,404
		50	5,00	5,00	4,60	4,86	0,231
		100	6,60	6,00	5,40	6,00	0,600
		150	6,50	6,00	6,80	6,43	0,404
5	1	0	4,40	4,40	4,00	4,26	0,231
		50	6,00	6,00	6,10	6,03	0,058
		100	6,10	6,10	6,50	6,23	0,231
		150	6,50	6,80	6,40	6,56	0,208
	28	0	4,00	4,50	4,60	4,36	0,321
		50	6,00	6,50	6,30	6,26	0,252
		100	6,50	6,00	6,10	6,20	0,265
		150	7,00	6,50	6,80	6,76	0,252

pH

Formula	Hari ke-	pH			Rata-rata	±SD
		R1	R2	R3		
1	1	7,0	7,5	8,0	7,5	0,500
	28	8,0	8,0	6,5	7,5	0,866
2	1	4,5	5,0	4,0	4,5	0,500
	28	5,0	4,5	5,5	5,0	0,500
3	1	5,0	6,0	4,0	5,0	1,000
	28	5,0	6,0	7,0	4,0	1,000
4	1	5,5	5,0	6,0	5,5	0,500
	28	5,5	5,0	6,0	5,5	0,500
5	1	6,0	6,0	6,0	6,0	0,000
	28	6,0	6,0	6,0	6,0	0,000

Viskositas

Formula	Hari ke-	Viskositas (dPas)			Rata-rata	±SD
		R1	R2	R3		
1	1	33	30	36	33	3,00
	28	33	36	30	33	3,00
2	1	37	35	30	34	3,60
	28	35	28	42	35	7,00
3	1	30	20	25	25	5,00
	28	22	28	22	24	3,46
4	1	22	22	28	24	3,46
	28	24	22	26	24	2,00
5	1	33	35	31	33	2,00
	28	32	35	29	32	3,00

Lampiran 7. Penimbangan DPPH dan pembuatan larutan stok

Serbuk DPPH yang digunakan dalam uji aktivitas antioksidan dibuat dengan konsentrasi 0,4 mM dalam 100 ml etanol *p.a.*

Nilai mol (n) = gram/Mr = 0,0158 gram/ 394,32 = 0,000040 mol.

Maka nilai molaritas (M) = n/L = 0,000040/0,1 = 0,0004 M = 0,4 mM.

Pembuatan larutan stok ekstrak etanol kayu secang

Pembuatan larutan stok ekstrak dilakukan dengan menimbang 5 mg dan dimasukkan kedalam labu takar 50 ml lalu ditambahkan etanol *p.a* sampai tanda batas sehingga diperoleh konsentrasi 100 ppm.

Konsentrasi larutan ekstrak = 5 mg/ 50 ml

$$= 100 \text{ mg/ } 1000 \text{ ml}$$

$$= 100 \text{ ppm}$$

Larutan tersebut kemudian diencerkan menjadi 5 seri pengenceran yakni 2 ppm, 4 ppm, 6 ppm, 8 ppm, dan 10 ppm sebanyak 10 ml.

Konsentrasi 2 ppm

$$V1 \times C1 = V2 \times C2$$

$$V1 \times 100 \text{ ppm} = 10 \times 2 \text{ ppm}$$

$$V1 = 0,2 \text{ ml}$$

Konsentrasi 4 ppm

$$V1 \times C1 = V2 \times C2$$

$$V1 \times 100 \text{ ppm} = 10 \times 4 \text{ ppm}$$

$$V1 = 0,4 \text{ ml}$$

Konsentrasi 6 ppm

$$V1 \times C1 = V2 \times C2$$

$$V1 \times 100 \text{ ppm} = 10 \times 6 \text{ ppm}$$

$$V1 = 0,6 \text{ ml}$$

Konsentrasi 8 ppm

$$V1 \times C1 = V2 \times C2$$

$$V1 \times 100 \text{ ppm} = 10 \times 8 \text{ ppm}$$

$$V1 = 0,8 \text{ ml}$$

Konsentrasi 10 ppm

$$V1 \times C1 = V2 \times C2$$

$$V1 \times 100 \text{ ppm} = 10 \times 10 \text{ ppm}$$

$$V1 = 1 \text{ ml}$$

Pembuatan larutan stok serum {formula 1 (kontrol negatif), formula 2, formula 3, formula 4, formula 5 (kontrol positif)}

Pembuatan larutan stok sediaan serum dilakukan dengan menimbang serum sebanyak 1 mg dan dimasukkan ke dalam labu takar 10 ml lalu ditambahkan etanol *p.a* sampai tanda batas sehingga diperoleh konsentrasi 100 ppm.

$$\begin{aligned} \text{Konsentrasi larutan stok serum} &= 1 \text{ mg} / 10 \text{ ml} \\ &= 100 \text{ mg} / 1000 \text{ ml} \\ &= 100 \text{ ppm} \end{aligned}$$

Larutan tersebut kemudian diencerkan menjadi 5 seri pengenceran yakni 10 ppm, 20 ppm, 30 ppm, 40 ppm, dan 50 ppm sebanyak 10 ml.

Konsentrasi 10 ppm

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

$$V_1 \times 100 \text{ ppm} = 10 \times 10 \text{ ppm}$$

$$V_1 = 1 \text{ ml}$$

Konsentrasi 20 ppm

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

$$V_1 \times 100 \text{ ppm} = 10 \times 20 \text{ ppm}$$

$$V_1 = 2 \text{ ml}$$

Konsentrasi 30 ppm

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

$$V_1 \times 100 \text{ ppm} = 10 \times 30 \text{ ppm}$$

$$V_1 = 3 \text{ ml}$$

Konsentrasi 40 ppm

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

$$V_1 \times 100 \text{ ppm} = 10 \times 40 \text{ ppm}$$

$$V_1 = 4 \text{ ml}$$

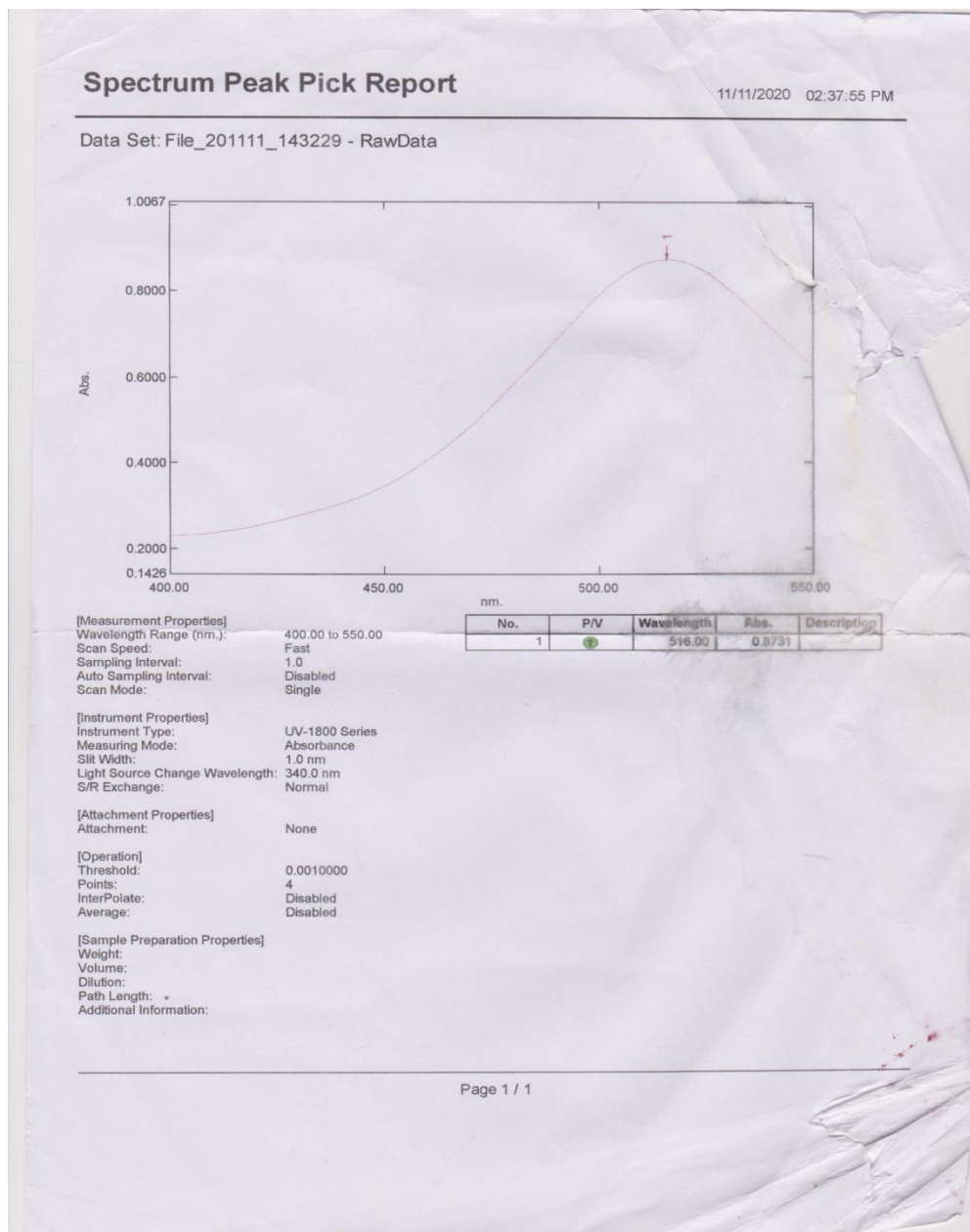
Konsentrasi 50 ppm

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

$$V_1 \times 100 \text{ ppm} = 10 \times 50 \text{ ppm}$$

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

Lampiran 8. Penentuan panjang gelombang maksimum



Lampiran 9. Penentuan *operating time*

Kinetics Data Print Report

Time (Minute)	RawData ...
0.000	0.623
1.000	0.614
2.000	0.605
3.000	0.605
4.000	0.604
5.000	0.604
6.000	0.605
7.000	0.604
8.000	0.605
9.000	0.605
10.000	0.605
11.000	0.605
12.000	0.604
13.000	0.605
14.000	0.604
15.000	0.604
16.000	0.604
17.000	0.603
18.000	0.603
19.000	0.602
20.000	0.602
21.000	0.602
22.000	0.601
23.000	0.601
24.000	0.600
25.000	0.600
26.000	0.599
27.000	0.599
28.000	0.599
29.000	0.598
30.000	0.598
31.000	0.597
32.000	0.597
33.000	0.596
34.000	0.596
35.000	0.595
36.000	0.595
37.000	0.594
38.000	0.594
39.000	0.593
40.000	0.593
41.000	0.592
42.000	0.592
43.000	0.591
44.000	0.591
45.000	0.590
46.000	0.590
47.000	0.589
48.000	0.589
49.000	0.588
50.000	0.588

Kinetics Data Print Report

Time (Minute)	RawData ...
51.000	0.588
52.000	0.587
53.000	0.587
54.000	0.586
55.000	0.586
56.000	0.586
57.000	0.586
58.000	0.585
59.000	0.585
60.000	0.585

Lampiran 10. Perhitungan aktivitas antioksidan dan IC₅₀

Ekstrak

Kons. (ppm)	Abs. sampel			Abs. kontrol	% inhibisi		
	R1	R2	R3		R1	R2	R3
2	0,663	0,670	0,620	0,818	27,2228	31,9429	26,4544
4	0,654	0,661	0,611		28,2108	32,9306	27,4424
6	0,647	0,654	0,604		28,9791	33,6992	28,2108
8	0,640	0,647	0,597		29,7475	34,4676	28,9791
10	0,634	0,641	0,591		30,4061	35,1262	29,6378

Replikasi	Regresi linear	IC ₅₀ (ppm)	Rata-rata	±SD
1	a : 26,5423 b : 0,3952 r : 0,9973	23,5210	22,2002	2,980
2	a : 31,2623 b : 0,3952 r : 0,9973	18,7882		
3	a : 25,7739 b : 0,3952 r : 0,9973	24,2915		

Formula 1

Kons. (ppm)	Abs. sampel			Abs. kontrol	% inhibisi		
	R1	R2	R3		R1	R2	R3
10	0,870	0,875	0,874	0,818	3,9517	4,5005	4,0614
20	0,846	0,851	0,850		6,5861	7,1350	6,6959
30	0,826	0,831	0,830		8,7815	9,3304	8,8913
40	0,803	0,808	0,807		11,3062	11,8551	11,4160
50	0,773	0,788	0,797		13,5016	15,1481	12,5137

Replikasi	Regresi linear	IC ₅₀ (ppm)	Rata-rata	±SD
1	a : 1,6795 b : 0,2382 r : 0,9995	202,8571	203,0291	17,799
2	a : 1,7892 b : 0,2602 r : 0,9975	185,3165		
3	a : 2,2283 b : 0,2162 r : 0,9923	220,9137		

Formula 2

Kons. (ppm)	Abs. sampel			Abs. kontrol	% inhibisi		
	R1	R2	R3		R1	R2	R3
10	0,794	0,795	0,796	0,818	12,8430	12,7333	12,6235
20	0,769	0,768	0,775		15,5873	15,6970	14,9286
30	0,751	0,748	0,754		17,5631	17,8924	17,2338
40	0,730	0,732	0,722		19,8683	19,6487	20,7464
50	0,701	0,693	0,709		23,0516	23,9297	22,1734

Replikasi	Regresi linear	IC ₅₀ (ppm)	Rata-rata	±SD
1	a : 10,3732 b : 1,2349 r : 0,9969	40,1733	40,0945	0,313
2	a : 10,0768 b : 1,3172 r : 0,9892	40,3602		
3	a : 10,0659 b : 1,2459 r : 0,9940	39,7499		

Formula 3

Kons. (ppm)	Abs. sampel			Abs. kontrol	% inhibisi		
	R1	R2	R3		R1	R2	R3
10	0,771	0,783	0,813	0,818	15,3677	10,7574	14,0505
20	0,762	0,774	0,804		16,3557	11,7453	15,0384
30	0,755	0,767	0,797		17,1240	12,5137	15,8068
40	0,748	0,760	0,790		17,8924	13,2821	16,5752
50	0,742	0,754	0,784		18,5510	13,9407	17,2338

Replikasi	Regresi linear	IC ₅₀ (ppm)	Rata-rata	±SD
1	a : 14,6872 b : 0,3952 r : 0,9973	35,4081	37,3893	2,381
2	a : 10,0768 b : 0,3952 r : 0,9973	40,0308		
3	a : 13,3699 b : 0,3952 r : 0,9973	36,7289		

Formula 4

Kons. (ppm)	Abs. sampel			Abs. kontrol	% inhibisi		
	R1	R2	R3		R1	R2	R3
10	0,743	0,739	0,750	0,818	18,4413	18,8804	17,6729
20	0,734	0,730	0,696		19,4292	19,8683	23,6004
30	0,727	0,723	0,650		20,1976	20,6367	28,6498
40	0,720	0,716	0,595		20,9660	21,4050	34,6872
50	0,714	0,710	0,526		21,6246	22,0637	42,2631

Replikasi	Regresi linear	IC ₅₀ (ppm)	Rata-rata	±SD
1	a : 17,7607 b : 0,3952 r : 0,9973	32,3262	34,3396	3,875
2	a : 18,1998 b : 0,3952 r : 0,9973	31,8860		
3	a : 11,2953 b : 3,0132 r : 0,9974	38,8067		

Formula 5

Kons. (ppm)	Abs. sampel			Abs. kontrol	% inhibisi		
	R1	R2	R3		R1	R2	R3
10	0,711	0,723	0,705	0,818	21,9539	22,6125	20,6367
20	0,702	0,714	0,696		22,9418	23,6004	21,6264
30	0,695	0,707	0,689		23,7102	24,3688	22,3930
40	0,689	0,701	0,683		24,3688	25,0274	23,0516
50	0,683	0,695	0,677		25,0274	25,6861	23,7102

Replikasi	Regresi linear	IC ₅₀ (ppm)	Rata-rata	±SD
1	a : 21,3182 b : 0,3787 r : 0,9959	28,7890	29,0094	1,010
2	a : 21,9868 b : 0,3787 r : 0,9959	28,1277		
3	a : 20,0110 b : 0,2162 r : 0,9923	30,1116		

Lampiran 11. Hasil analisis statistik terhadap uji daya sebar, uji viskositas, uji pH, dan uji aktivitas antioksidan

Uji daya sebar

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
daya sebar 1	40	5.7348	1.06024	4.00	6.90

One-Sample Kolmogorov-Smirnov Test

		daya sebar 1
N		40
Normal Parameters ^{a,b}	Mean	5.7348
	Std. Deviation	1.06024
	Absolute	.230
Most Extreme Differences	Positive	.210
	Negative	-.230
Kolmogorov-Smirnov Z		1.453
Asymp. Sig. (2-tailed)		.029

a. Test distribution is Normal.

b. Calculated from data.

ANOVA

Descriptives

daya sebar

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
kontrol negative	8	5.3996	1.28205	.45327	4.3278	6.4714	4.00	6.77
ekstrak 0,5%	8	5.6666	1.15428	.40810	4.7016	6.6316	4.50	6.90
ekstrak 1%	8	5.8708	.98108	.34687	5.0505	6.6910	4.60	6.83
ekstrak 2%	8	5.8999	1.09205	.38610	4.9869	6.8129	4.47	6.83
kontrol positif	8	5.8370	.96639	.34167	5.0291	6.6449	4.27	6.77
Total	40	5.7348	1.06024	.16764	5.3957	6.0739	4.00	6.90

Test of Homogeneity of Variances

daya sebar

Levene Statistic	df1	df2	Sig.
2.253	4	35	.083

ANOVA

daya sebar

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1.385	4	.346	.286	.885
Within Groups	42.455	35	1.213		
Total	43.841	39			

daya sebar

	Formula	N	Subset for alpha = 0.05
			1
Tukey HSD ^a	kontrol negatif	8	5.3996
	ekstrak 0,5%	8	5.6666
	kontrol positif	8	5.8370
	ekstrak 1%	8	5.8708
	ekstrak 2%	8	5.8999
	Sig.		.892

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 8.000.

Kruskal-Wallis Test

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
daya sebar	40	5.7348	1.06024	4.00	6.90
Formula	40	3.00	1.432	1	5

Ranks

	Formula	N	Mean Rank
daya sebar	kontrol negative	8	15.13
	ekstrak 0,5%	8	22.31
	ekstrak 1%	8	22.81

ekstrak 2%	8	23.94
kontrol positif	8	18.31
Total	40	

Test Statistics^{a,b}

	daya sebar
Chi-Square	3.174
Df	4
Asymp. Sig.	.529

a. Kruskal Wallis Test

b. Grouping Variable:

formula

Uji viskositas

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
viskositas	10	29.70	4.762	24	35

One-Sample Kolmogorov-Smirnov Test

		Viskositas
N		10
Normal Parameters ^{a,b}	Mean	29.70
	Std. Deviation	4.762
	Absolute	.285
Most Extreme Differences	Positive	.238
	Negative	-.285
Kolmogorov-Smirnov Z		.903
Asymp. Sig. (2-tailed)		.389

a. Test distribution is Normal.

b. Calculated from data.

Kruskal-Wallis Test

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
viskositas	10	29.70	4.762	24	35
Formula	10	3.00	1.491	1	5

Ranks			
	Formula	N	Mean Rank
viskositas	kontrol negatif	2	7.00
	ekstrak 0,5%	2	9.50
	ekstrak 1%	2	3.00
	ekstrak 2%	2	2.00
	kontrol positif	2	6.00
	Total	10	

Test Statistics ^{a,b}	
	viskositas
Chi-Square	8.484
Df	4
Asymp. Sig.	.075

a. Kruskal Wallis Test

b. Grouping Variable:

formula

Uji pH

NPar Tests

Descriptive Statistics					
	N	Mean	Std. Deviation	Minimum	Maximum
pH	10	5.750	1.0341	4.5	7.5

One-Sample Kolmogorov-Smirnov Test			
			pH
N			10
Normal Parameters ^{a,b}	Mean		5.750
	Std. Deviation		1.0341
	Absolute		.204
Most Extreme Differences	Positive		.204
	Negative		-.155
Kolmogorov-Smirnov Z			.647
Asymp. Sig. (2-tailed)			.797

a. Test distribution is Normal.

b. Calculated from data.

Kruskal-Wallis Test

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
pH	10	5.750	1.0341	4.5	7.5
formula	10	3.00	1.491	1	5

Ranks

	Formula	N	Mean Rank
pH	kontrol negative	2	9.50
	ekstrak 0,5%	2	2.00
	ekstrak 1%	2	3.00
	ekstrak 2%	2	5.50
	kontrol positif	2	7.50
	Total	10	

Test Statistics^{a,b}

	pH
Chi-Square	8.772
df	4
Asymp. Sig.	.067

a. Kruskal Wallis Test

b. Grouping Variable:

formula

Uji aktivitas antioksidan

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
IC 50	15	68.772380	69.9356413	28.1277	220.9137

One-Sample Kolmogorov-Smirnov Test

		IC 50
N		15
Normal Parameters ^{a,b}	Mean	68.772380
	Std. Deviation	69.9356413
Most Extreme Differences	Absolute	.458
	Positive	.458

Negative	-.281
Kolmogorov-Smirnov Z	1.773
Asymp. Sig. (2-tailed)	.004

a. Test distribution is Normal.

b. Calculated from data.

Kruskal-Wallis Test

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
IC 50	15	68.772380	69.9356413	28.1277	220.9137
Formula	15	3.00	1.464	1	5

Ranks

	Formula	N	Mean Rank
IC 50	kontrol negative	3	14.00
	ekstrak 0,5%	3	10.67
	ekstrak 1%	3	7.67
	ekstrak 2%	3	5.67
	kontrol positif	3	2.00
	Total	15	

Test Statistics^{a,b}

	IC 50
Chi-Square	12.700
Df	4
Asymp. Sig.	.013

a. Kruskal Wallis Test

b. Grouping Variable:

formula