L A M P I R A N

Lampiran 1. Hasil determinasi daun teh hijau

UNIVERSITAS SETIA BUDI

UPT-LABORATORIUM

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Nomor : 273/DET/UPT-LAB/24.09.2021
Hal : Hasil determinasi tumbuhan
Lamp. : -

Nama Pemesan : Munika Cahyaningtyas
NIM : 24185643A
Alamat : Program studi S1 Farmasi, Universitas Setia Budi, Surakarta
Nama sampel : *Camellia sinensis* L. / Teh hijau

HASIL DETERMINASI TUMBUHAN

Klasifikasi

Kingdom : Plantae
Super Divisi : Spermatophyta
Divisi : Magnoliophyta
Kelas : Magnoliopsida
Ordo : Theales
Famili : Theaceae
Genus : Camellia
Species : *Camellia sinensis* L.

Hasil Determinasi menurut Steenis, C.G.G.J.V, Bloembergen, H, Eyma, P.J. 1992 : 1b – 2b – 3b – 4b – 6b – 7b – 9b – 10b – 11b – 12b – 13b – 14a – 15a. golongan 8. 109b – 119b – 120b – 128b – 129b – 135b – 136b – 139b – 140b – 142b – 143b – 146b – 154b – 155b – 156b – 162b – 163b – 167b – 169b – 171a – 172b – 173b – 174b – 176b. familia 79.Theaceae. 1. *Camelia sinensis* L.

Deskripsi:

Habitus : Pohon, karena pemangkasan kerap kali seperti perdu, tinggi 5 – 10 m.
Akar : Sistem akar tunggang. Cabang akar sedikit, Perakaran dangkal dengan kedalaman sekitar 23 cm.

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Batang : Batang berkayu, bulat, percabangan monopodial. Ujung ranting dan daun muda beram-but halus.

Daun : Daun tunggal, tersebar, helaian daun eliptis memanjang, pangkal runcing, ujung runcing, tepi bergerigi, seperti kulit tipis, panjang 6,9 – 9,3 cm, lebar 2,7 – 3,5 cm.

Bunga : Bunga tunggal, tumbuh di ketiak, berkelamin 2, bunga yang membuka menunduk, garis tengah lk 3 cm, sangat harum, putih cerah. Daun kelopak tetap, 5 – 6, sangat tidak sama. Daun mahkota pada pangkalnya melekat ringan. Benang sari berlingkaran banyak, yang terluar pada pangkalnya bersatu, melekat dengan daun mahkota, yang terdalam lepas. Tangkai putik bercabang 3.

Buah : Buah kotak berkayu lebarnya lebih dari pada panjangnya, pecah menurut ruang.

Biji : Biji berjumlah 1 – 3, warna coklat dan mempunyai tiga ruang, dengan kulit tipis, bentuknya bundar pada satu sisi, dan datar pada sisi yang lain.

Surakarta, 24 September 2021

Kepala UPT-LAB	Penanggung jawab
Universitas Setia Budi	Determinasi Tumbuhan
Asik Gunawan, Amdk	Dra. Dewi Sulistyawati. M.Sc.

Lampiran 2. Bahan penelitian

Daun teh hijau segar

Daun teh hijau kering

Penggilingan daun teh hijau kering

Serbuk kasar daun teh hijau

Pengayaan dengan mesh no.60

Serbuk halus daun teh hijau

Lampiran 3. Perhitungan rendemen serbuk daun teh hijau

Daun teh hijau segar yang digunakan sebanyak 5 kg, kemudian dilakukan sortas dan pengeringan diperoleh bobot daun teh hijau kering sebesar 1,8 kg. Rendemen yang diperoleh sebagai berikut :

% rendemen daun teh hijau = $\frac{Bobot\ daun\ kering}{Bobot\ daun\ segar}\ x\ 100\%$

$= \frac{1800\ gram}{5000\ gram}\ x\ 100\%$

= 36 %

Daun teh hijau kering dengan bobot 1,8 kg kemudian dihaluskan dengan penggilingan, diperoleh serbuk kasar daun teh hijau dengan bobot 1,2 kg. Serbuk kasar daun teh hijau kemudian diayak menggunakan ayakan mesh 60 dan diperoleh serbuk halus sebesar 800 gram. Rendemen yang diperoleh sebagai berikut :

% rendemen daun teh hijau = $\frac{Bobot\ serbuk\ halus}{Bobot\ daun\ kering}\ x\ 100\%$

$= \frac{800\ gram}{1800\ gram}\ x\ 100\%$

= 44,44 %

Lampiran 4. Penetapan susut pengeringan serbuk daun teh hijau

Replikasi 1

Replikasi II

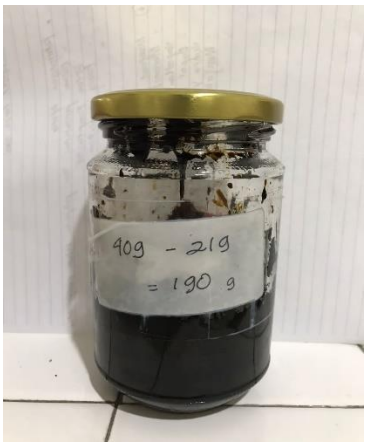
Replikasi III

Lampiran 5. Pembuatan ekstrak duan teh hijau

Maserasi

Penyaringan maserat

Pengentalan ekstrak dengan evaporator



Ekstrak kental

Lampiran 6. Perhitungan rendemen ekstrak daun teh hijau

Serbuk daun teh hijau yang digunakan dalam proses ekstraksi sebanyak 600 gram, kemudian diperoleh bobot total ekstrak kental daun teh hijau sebesar 190 gram. Rendemen yang diperoleh sebagai berikut :

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

$$= \frac{190\ gram}{600\ gram}\ x\ 100\%$$

$$= 31{,}67\ \%$$

Lampiran 7. Penetapan kadar air esktrak daun teh hijau

Oven dengan suhu 105^{o}C

Desikator

Sebelum Pengeringan

Setelah pengeringa

Perhitungan kadar air dengan metode gravimetri

Replikasi I

Bobot cawan kosong = 40,0730 g

Bobot cawan + ekstrak sebelum di oven = 42,0750 g

Bobot awal = 42,0750 g – 40,0730 g

= 2,0020 g

Bobot cawan + ekstrak setelah di oven = 41,8860 g

Bobot akhir = 41,8860 g - 40.0730 g

= 1,7690 g

% kadar air = $\frac{2,0020-1,7690}{2,0020}\ x\ 100\%$

= 11,6 %

Replikasi II

Bobot cawan kosong = 40,7440 g

Bobot cawan + ekstrak sebelum di oven = 42,7440 g

Bobot awal = 42,7440 g - 40,7440 g
= 2,0000 g

Bobot cawan + ekstrak setelah di oven = 42,5160 g

Bobot akhir = 42,5160 g - 40,7440 g

= 1,7720 g

% kadar air = $\frac{2,0000-1,7720}{2,0000}\ x\ 100\%$

= 11,4 %

Replikasi II

Bobot cawan kosong = 39,5500 g

Bobot cawan + ekstrak sebelum di oven = 41,5570 g

Bobot awal = 41,5570 g - 39,5500 g
= 2,0070 g

Bobot cawan + ekstrak setelah di oven = 41,2840 g

Bobot akhir = 41,2840 g - 39,5500 g

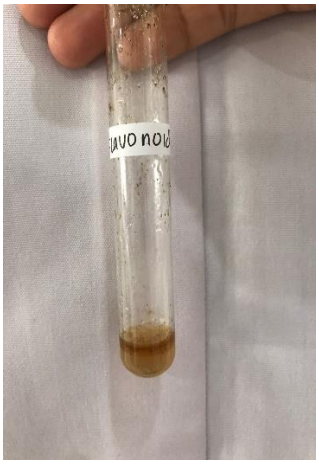
= 1,7340 g

% kadar air = $\frac{2,0070-1,7340}{2,0070}\ x\ 100\%$

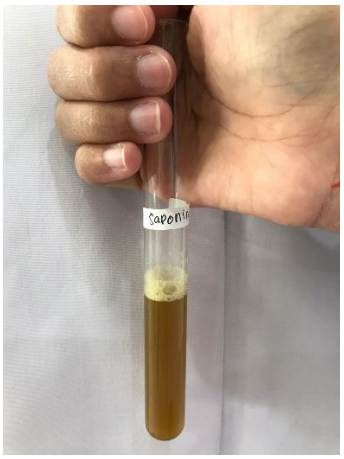
= 11,3 %

Lampiran 8. Pemeriksaan kandungan kimia ekstrak daun teh hijau

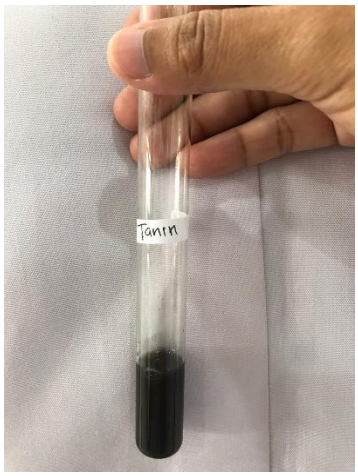
Uji Fenol



Uji flavonoid

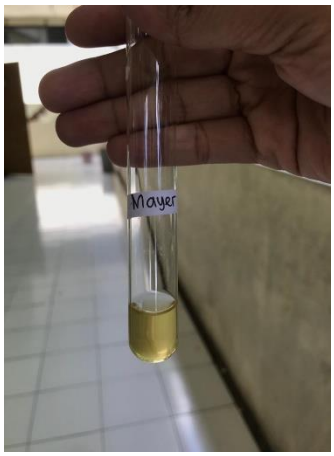


Uji saponin



Uji tanin

Uji steroid



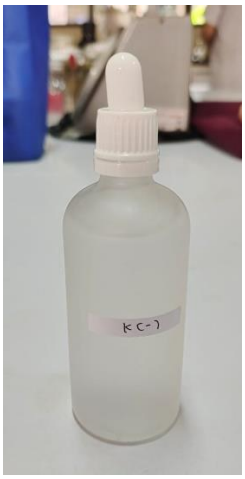
Uji alkaloid (mayer)

Uji alkaloid (bourchardat)

Uji alkaloid (wagner)

Lampiran 9. Hasil pembuatan sediaan serum ekstrak etanol daun teh hijau

Formula I-IV



Basis serum

Lampiran 10. Alat pengujian mutu fisik sediaan serum

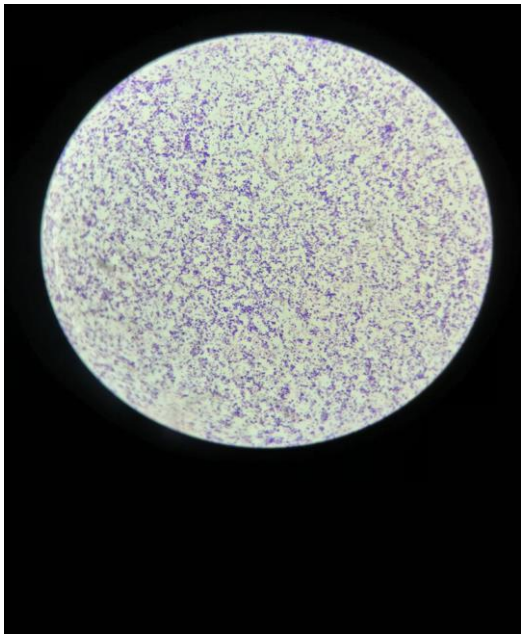
Alat pH meter

Uji homogenitas

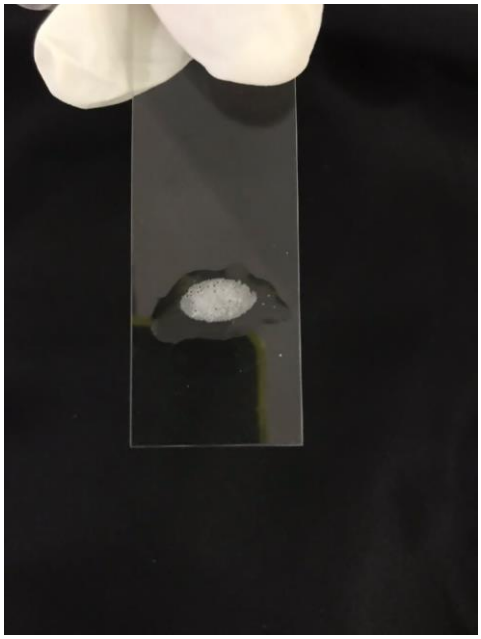
Alat viskometer

Alat uji daya sebar

Lampiran 11. Identifikasi bakteri *Staphylococcus epidermidis*

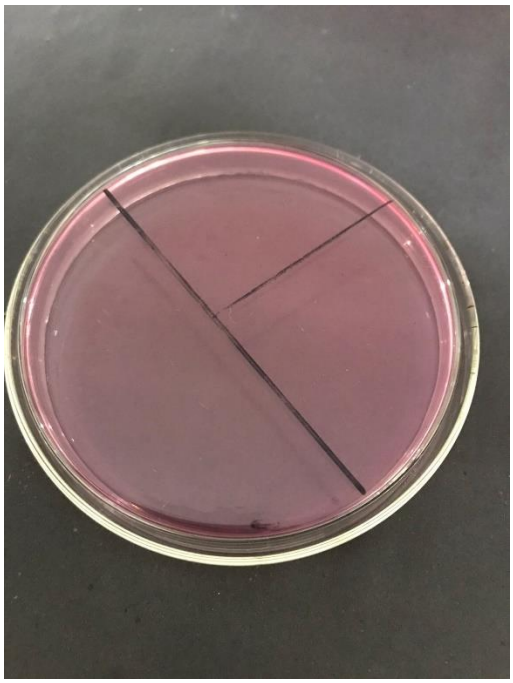


Pewarnaan Gram



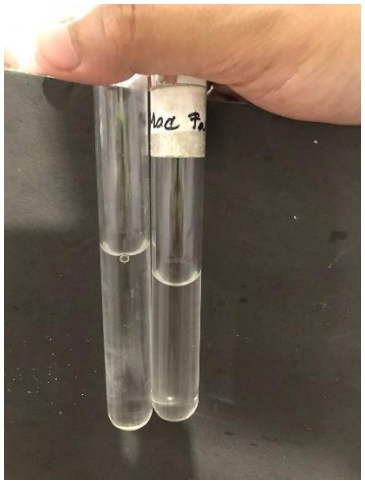
Uji Katalase

Uji Koagulase



Uji Manitol

Lampiran 12. Orientasi dosis ekstrak daun teh hijau

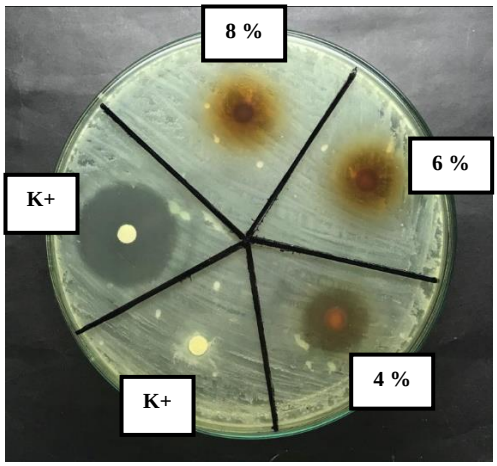


Pengenceran ekstrak daun teh hijau **Suspensi bakteri uji**

Seri konsentrasi ekstrak daun teh hijau dengan pelarut aquadest

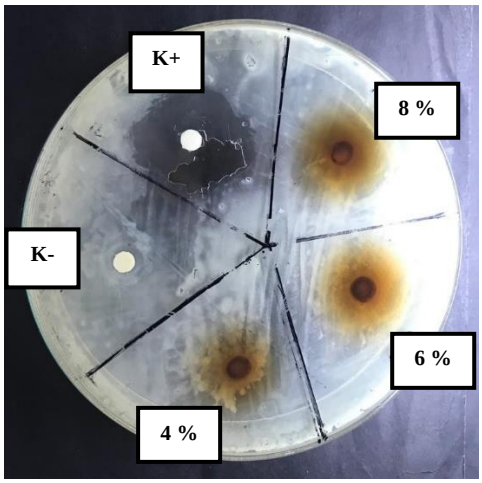
Perhitungan seri konsentrasi ekstrak daun teh hijau

- Konsentrasi 4 % = 4% b/v
  = 4 gram/100 ml
  = 0,04 gram/ml
- Konsentrasi 6 % = 6% b/v
  = 6 gram/100 ml
  = 0,06 gram/ml
- Konsentrasi 8 % = 8% b/v
  = 8 gram/100 ml
  = 0,08 gram/ml



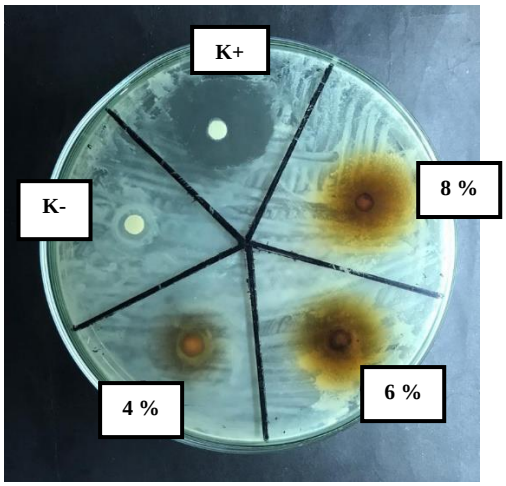
K- = -
4% = 22,48
6% = 24,13
8% = 26,07
K+ = 36,25

Replikasi I



K- = -
4% = 25,27
6% = 30,02
8% = 33,64
K+ = 35,15

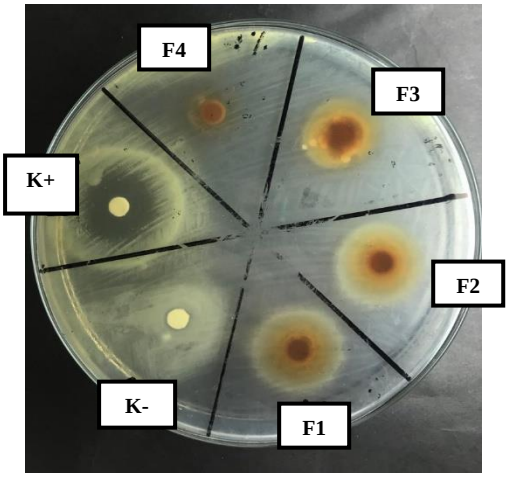
Replikasi II



K- = -
4% = 14,79
6% = 27,56
8% = 32,24
K+ = 34,05

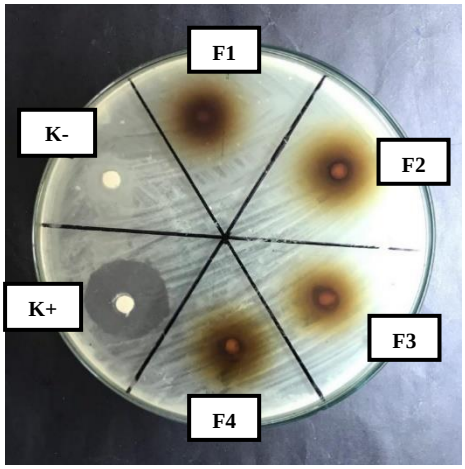
Replikasi III

Lampiran 13. Pengujian aktivitas antimikroba sediaan serum ekstrak etanol daun teh hijau



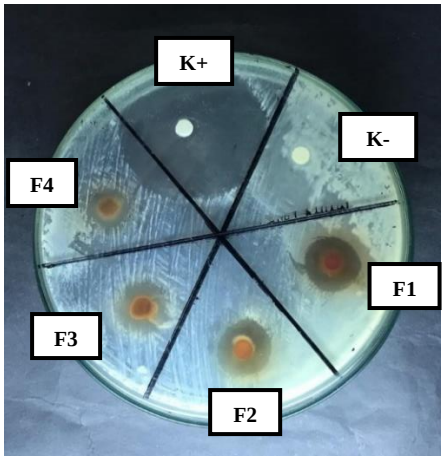
K- = -
F1 = 24,11
F2 = 22,04
F3 = 20,46
F4 = 16,21
K+ = 23,25

Replikasi I



K- = -
F1 = 19,56
F2 = 19,28
F3 = 19,38
F4 = 18,22
K+ = 23,22

Replikai II



K- = -
F1 = 23,06
F2 = 21,79
F3 = 18,34
F4 = 15,13
K+ = 33,33

Replikasi III

Lampiran 14. Data hasil mutu fisik pH sediaan serum esktrak etanol daun teh hijau

Replikasi	pH			
	Formula 1	Formula 2	Formula 2	Formula 2
1	6,22	5,69	5,23	4,79
2	6,33	5,88	5,38	4,87
3	6,18	5,76	5,21	4,67
Rata-rata	6,24	5,78	5,27	4,78
SD	0,08	0,09	0,09	0,11

Tests of Normality

	Kelompok perlakuan	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Uji_pH	Formula 1 carbopol 0,25%	,285	3	.	,932	3	,497
	Formula 2 carbopol 0,5%	,236	3	.	,977	3	,712
	Formula 3 carbopol 0,75%	,346	3	.	,837	3	,206
	Formula 4 carbopol 1%	,219	3	.	,987	3	,780

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

Uji_pH

Levene Statistic	df1	df2	Sig.
,073	3	8	,973

Multiple Comparisons

Dependent Variable: Uji_pH

Tukey HSD

(I) Kelompok perlakuan	(J) Kelompok perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula 1 carbopol 0,25%	Formula 2 carbopol 0,5%	,46667*	,07531	,001	,2255	,7078
	Formula 3 carbopol 0,75%	,97000*	,07531	,000	,7288	1,2112
	Formula 4 carbopol 1%	1,46667*	,07531	,000	1,2255	1,7078
Formula 2 carbopol 0,5%	Formula 1 carbopol 0,25%	-,46667*	,07531	,001	-,7078	-,2255
	Formula 3 carbopol 0,75%	,50333*	,07531	,001	,2622	,7445
	Formula 4 carbopol 1%	1,00000*	,07531	,000	,7588	1,2412
Formula 3 carbopol 0,75%	Formula 1 carbopol 0,25%	-,97000*	,07531	,000	-1,2112	-,7288
	Formula 2 carbopol 0,5%	-,50333*	,07531	,001	-,7445	-,2622
	Formula 4 carbopol 1%	,49667*	,07531	,001	,2555	,7378
Formula 4 carbopol 1%	Formula 1 carbopol 0,25%	-1,46667*	,07531	,000	-1,7078	-1,2255
	Formula 2 carbopol 0,5%	-1,00000*	,07531	,000	-1,2412	-,7588
	Formula 3 carbopol 0,75%	-,49667*	,07531	,001	-,7378	-,2555

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

Lampiran 15. Data hasil mutu fisik viskositas sediaan serum ekstrak etanol daun teh hijau

Replikasi	Viskositas (dPa.S)			
	Formula 1	Formula 2	Formula 2	Formula 2
1	65	72	95	110
2	62	75	91	130
3	68	79	94	125
Rata-rata	65	75,33	93,33	121,41
SD	3	3,51	2,08	10,41

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Kelompok_perlakuan	Statistic	df	Sig.	Statistic	df	Sig.
Uji_viskositas	Formula 1 carbopol 0,25%	,175	3	.	1,000	3	1,000
	Formula 2 carbopol 0,5%	,204	3	.	,993	3	,843
	Formula 3 carbopol 0,75%	,292	3	.	,923	3	,463
	Formula 4 carbopol 1%	,253	3	.	,964	3	,637

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

Uji_viskositas

Levene Statistic	df1	df2	Sig.
2,067	3	8	,183

Multiple Comparisons

Dependent Variable: Uji_viskositas

Tukey HSD

(I) Kelompok_perlakuan	(J) Kelompok_perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula 1 carbopol 0,25%	Formula 2 carbopol 0,5%	-10,333	3,742	,093	-22,32	1,65
	Formula 3 carbopol 0,75%	-28,333*	3,742	,000	-40,32	-16,35
	Formula 4 carbopol 1%	-56,667*	3,742	,000	-68,65	-44,68
Formula 2 carbopol 0,5%	Formula 1 carbopol 0,25%	10,333	3,742	,093	-1,65	22,32
	Formula 3 carbopol 0,75%	-18,000*	3,742	,006	-29,98	-6,02
	Formula 4 carbopol 1%	-46,333*	3,742	,000	-58,32	-34,35
Formula 3 carbopol 0,75%	Formula 1 carbopol 0,25%	28,333*	3,742	,000	16,35	40,32
	Formula 2 carbopol 0,5%	18,000*	3,742	,006	6,02	29,98
	Formula 4 carbopol 1%	-28,333*	3,742	,000	-40,32	-16,35
Formula 4 carbopol 1%	Formula 1 carbopol 0,25%	56,667*	3,742	,000	44,68	68,65
	Formula 2 carbopol 0,5%	46,333*	3,742	,000	34,35	58,32
	Formula 3 carbopol 0,75%	28,333*	3,742	,000	16,35	40,32

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

Lampiran 16. Data hasil mutu fisik daya sebar sediaan serum ekstrak etanol daun teh hijau

Beban (gram)	Replikasi	Daya sebar (cm)			
		Formula 1	Formula 2	Formula 3	Formula 4
0	1	9,1	8,3	6,1	5,3
	2	9,4	8,0	6,0	5,1
	3	9,2	8,1	6,3	5,0
	Rata-rata	9,23	8,13	6,13	5,13
	SD	0,15	0,15	0,15	0,15
50	1	9,4	8,6	6,5	5,6
	2	9,7	8,3	6,4	5,3
	3	9,5	8,4	6,7	5,4
	Rata-rata	9,53	8,43	6,53	5,43
	SD	0,16	0,15	0,15	0,15
100	1	9,7	8,9	6,8	5,9
	2	9,9	8,7	6,6	5,7
	3	9,8	8,6	6,9	5,6
	Rata-rata	9,80	8,73	6,77	5,73
	SD	0,10	0,15	0,15	0,15

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Kelompok_perlakuan	Statistic	df	Sig.	Statistic	df	Sig.
Beban_0	Formula 1 carbopol 0,25%	,253	3	.	,964	3	,637
	Formula 2 carbopol 0,5%	,253	3	.	,964	3	,637
	Formula 3 carbopol 0,75%	,253	3	.	,964	3	,637
	Formula 4 carbopol 1%	,253	3	.	,964	3	,637
Beban_50	Formula 1 carbopol 0,25%	,253	3	.	,964	3	,637
	Formula 2 carbopol 0,5%	,253	3	.	,964	3	,637
	Formula 3 carbopol 0,75%	,253	3	.	,964	3	,637
	Formula 4 carbopol 1%	,253	3	.	,964	3	,637
Beban_100	Formula 1 carbopol 0,25%	,175	3	.	1,000	3	1,000
	Formula 2 carbopol 0,5%	,253	3	.	,964	3	,637
	Formula 3 carbopol 0,75%	,253	3	.	,964	3	,637
	Formula 4 carbopol 1%	,253	3	.	,964	3	,637

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Beban_0	,000	3	8	1,000
Beban_50	,000	3	8	1,000
Beban_100	,333	3	8	,802

Post Hoc Tests

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Kelompok_perlakuan	(J) Kelompok_perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Beban_0	Formula 1 carbopol 0,25%	Formula 2 carbopol 0,5%	1,1000*	,1247	,000	,701	1,499
		Formula 3 carbopol 0,75%	3,1000*	,1247	,000	2,701	3,499
		Formula 4 carbopol 1%	4,1000*	,1247	,000	3,701	4,499
	Formula 2 carbopol 0,5%	Formula 1 carbopol 0,25%	-1,1000*	,1247	,000	-1,499	-,701
		Formula 3 carbopol 0,75%	2,0000*	,1247	,000	1,601	2,399
		Formula 4 carbopol 1%	3,0000*	,1247	,000	2,601	3,399
	Formula 3 carbopol 0,75%	Formula 1 carbopol 0,25%	-3,1000*	,1247	,000	-3,499	-2,701
		Formula 2 carbopol 0,5%	-2,0000*	,1247	,000	-2,399	-1,601
		Formula 4 carbopol 1%	1,0000*	,1247	,000	,601	1,399
	Formula 4 carbopol 1%	Formula 1 carbopol 0,25%	-4,1000*	,1247	,000	-4,499	-3,701
		Formula 2 carbopol 0,5%	-3,0000*	,1247	,000	-3,399	-2,601
		Formula 3 carbopol 0,75%	-1,0000*	,1247	,000	-1,399	-,601
Beban_50	Formula 1 carbopol 0,25%	Formula 2 carbopol 0,5%	1,1000*	,1247	,000	,701	1,499
		Formula 3 carbopol 0,75%	3,0000*	,1247	,000	2,601	3,399
		Formula 4 carbopol 1%	4,1000*	,1247	,000	3,701	4,499
	Formula 2 carbopol 0,5%	Formula 1 carbopol 0,25%	-1,1000*	,1247	,000	-1,499	-,701
		Formula 3 carbopol 0,75%	1,9000*	,1247	,000	1,501	2,299
		Formula 4 carbopol 1%	3,0000*	,1247	,000	2,601	3,399
	Formula 3 carbopol 0,75%	Formula 1 carbopol 0,25%	-3,0000*	,1247	,000	-3,399	-2,601
		Formula 2 carbopol 0,5%	-1,9000*	,1247	,000	-2,299	-1,501
		Formula 4 carbopol 1%	1,1000*	,1247	,000	,701	1,499
	Formula 4 carbopol 1%	Formula 1 carbopol 0,25%	-4,1000*	,1247	,000	-4,499	-3,701
		Formula 2 carbopol 0,5%	-3,0000*	,1247	,000	-3,399	-2,601
		Formula 3 carbopol 0,75%	-1,1000*	,1247	,000	-1,499	-,701
Beban_100	Formula 1 carbopol 0,25%	Formula 2 carbopol 0,5%	1,0667*	,1155	,000	,697	1,436
		Formula 3 carbopol 0,75%	3,0333*	,1155	,000	2,664	3,403
		Formula 4 carbopol 1%	4,0667*	,1155	,000	3,697	4,436
	Formula 2 carbopol 0,5%	Formula 1 carbopol 0,25%	-1,0667*	,1155	,000	-1,436	-,697
		Formula 3 carbopol 0,75%	1,9667*	,1155	,000	1,597	2,336
		Formula 4 carbopol 1%	3,0000*	,1155	,000	2,630	3,370
	Formula 3 carbopol 0,75%	Formula 1 carbopol 0,25%	-3,0333*	,1155	,000	-3,403	-2,664
		Formula 2 carbopol 0,5%	-1,9667*	,1155	,000	-2,336	-1,597
		Formula 4 carbopol 1%	1,0333*	,1155	,000	,664	1,403
	Formula 4 carbopol 1%	Formula 1 carbopol 0,25%	-4,0667*	,1155	,000	-4,436	-3,697
		Formula 2 carbopol 0,5%	-3,0000*	,1155	,000	-3,370	-2,630
		Formula 3 carbopol 0,75%	-1,0333*	,1155	,000	-1,403	-,664

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

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Lampiran 17. Data hasil mutu fisik stabilitas pH sediaan serum esktrak etanol daun teh hijau

Replikasi	pH							
	Sebelum cycling test				Setelah cycling test			
	F1	F2	F3	F4	F1	F2	F3	F4
1	6,22	5,69	5,23	4,79	6,11	5,46	5,11	4,62
2	6,33	5,88	5,38	4,87	6,21	5,71	5,21	4,74
3	6,18	5,76	5,21	4,67	6,06	5,52	5,10	4,55
Rata-rata	6,24	5,78	5,27	4,78	6,13	5,56	5,14	4,64
SD	0,08	0,09	0,09	0,11	0,08	0,13	0,06	0,09

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Formula 1 sebelum cycling test	,285	3	.	,932	3	,497
Formula 1 setelah cycling test	,253	3	.	,964	3	,637
Formula 2 sebelum cycling test	,236	3	.	,977	3	,712
Formula 2 setelah cycling test	,297	3	.	,917	3	,443
Formula 3 sebelum cycling test	,346	3	.	,837	3	,206
Formula 3 setelah cycling test	,356	3	.	,818	3	,157
Formula 4 sebelum cycling test	,219	3	.	,987	3	,780
Formula 4 setelah cycling test	,236	3	.	,977	3	,712

a. Lilliefors Significance Correction

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	Formula 1 sebelum cycling test - Formula 1 setelah cycling test	,11667	,00577	,00333	,10232	,13101	35,000	2	,001
Pair 2	Formula 2 sebelum cycling test - Formula 2 setelah cycling test	,21333	,03786	,02186	,11929	,30738	9,760	2	,010
Pair 3	Formula 3 sebelum cycling test - Formula 3 setelah cycling test	,13333	,03215	,01856	,05348	,21319	7,184	2	,019
Pair 4	Formula 4 sebelum cycling test - Formula 4 setelah cycling test	,14000	,02646	,01528	,07428	,20572	9,165	2	,012

Lampiran 18. Data hasil mutu fisik stabilitas viskositas sediaan serum esktrak etanol daun teh hijau

Replikasi	Viskositas (dPa.S)							
	Sebelum cycling test				Setelah cycling test			
	F1	F2	F3	F4	F1	F2	F3	F4
1	65	72	95	110	52	65	85	105
2	62	75	91	130	50	61	80	125
3	68	79	94	125	55	68	82	120
Rata-rata	65	75,33	93,33	121,41	52,33	64,67	82,34	116,66
SD	3	3,51	2,08	10,41	2,52	3,51	2,52	10,41

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Formula 1 sebelum cycling test	,175	3	.	1,000	3	1,000
Formula 1 setelah cycling test	,219	3	.	,987	3	,780
Formula 2 sebelum cycling test	,204	3	.	,993	3	,843
Formula 2 setelah cycling test	,204	3	.	,993	3	,843
Formula 3 sebelum cycling test	,292	3	.	,923	3	,463
Formula 3 setelah cycling test	,219	3	.	,987	3	,780
Formula 4 sebelum cycling test	,292	3	.	,923	3	,463
Formula 4 setelah cycling test	,253	3	.	,964	3	,637

a. Lilliefors Significance Correction

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	Formula 1 sebelum cycling test - Formula 1 setelah cycling test	12,667	,577	,333	11,232	14,101	38,000	2	,001
Pair 2	Formula 2 sebelum cycling test - Formula 2 setelah cycling test	10,667	3,512	2,028	1,943	19,391	5,261	2	,034
Pair 3	Formula 3 sebelum cycling test - Formula 3 setelah cycling test	11,000	1,000	,577	8,516	13,484	19,053	2	,003
Pair 4	Formula 4 sebelum cycling test - Formula 4 setelah cycling test	13,333	5,774	3,333	-1,009	27,676	4,000	2	,057

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Lampiran 19. Data hasil mutu fisik stabilitas daya sebar sediaan serum esktrak etanol daun teh hijau

Beban (gram)	Replikasi	Stabilitas daya sebar (cm)							
		Sebelum cycling test				Setelah cycling test			
		F1	F2	F3	F4	F1	F2	F3	F4
0	1	9,1	8,3	6,1	5,3	9,5	8,6	6,4	5,6
	2	9,4	8,0	6,0	5,1	9,7	8,4	6,3	5,3
	3	9,2	8,1	6,3	5,0	10,1	8,3	6,6	5,5
	Rata-rata	9,23	8,13	6,13	5,13	9,77	8,43	6,43	5,47
	SD	0,15	0,12	0,16	0,13	0,31	0,13	0,15	0,15
50	1	9,4	8,6	6,5	5,6	9,9	8,9	6,7	5,9
	2	9,7	8,3	6,4	5,3	10,2	8,7	6,6	5,6
	3	9,5	8,4	6,7	5,4	10,4	8,6	6,9	5,8
	Rata-rata	9,53	8,43	6,53	5,43	10,17	8,73	6,73	5,77
	SD	0,16	0,14	0,12	0,15	0,22	0,17	0,12	0,16
100	1	9,7	8,9	6,8	5,9	10,3	9,2	7,1	6,4
	2	9,9	8,7	6,6	5,7	10,6	9,1	7,0	6,1
	3	9,8	8,6	6,9	5,6	10,4	9,4	7,3	6,3
	Rata-rata	9,80	8,73	6,77	5,73	10,43	9,23	7,13	6,26
	SD	0,10	0,15	0,15	0,17	0,15	0,18	0,14	0,13

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Formula 1 sebelum cycling test	,175	3	.	1,000	3	1,000
Formula 1 setelah cycling test	,253	3	.	,964	3	,637
Formula 2 sebelum cycling test	,369	3	.	,787	3	,085
Formula 2 setelah cycling test	,253	3	.	,964	3	,637
Formula 3 sebelum cycling test	,253	3	.	,964	3	,637
Formula 3 setelah cycling test	,253	3	.	,964	3	,637
Formula 4 sebelum cycling test	,253	3	.	,964	3	,637
Formula 4 setelah cycling test	,253	3	.	,964	3	,637

a. Lilliefors Significance Correction

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	Formula 1 sebelum cycling test - Formula 1 setelah cycling test	-,6333	,0577	,0333	-,7768	-,4899	-19,000	2	,003
Pair 2	Formula 2 sebelum cycling test - Formula 2 setelah cycling test	-1,7333	1,1719	,6766	-4,6445	1,1778	-2,562	2	,125
Pair 3	Formula 3 sebelum cycling test - Formula 3 setelah cycling test	-,3667	,0577	,0333	-,5101	-,2232	-11,000	2	,008
Pair 4	Formula 4 sebelum cycling test - Formula 4 setelah cycling test	-,5333	,1528	,0882	-,9128	-,1539	-6,047	2	,026

Activa

Lampiran 20. Data hasil orientasi dosis ekstrak daun teh hijau

Replikasi	Diameter zona hambat (cm)				
	Ekstrak 4%	Ekstrak 6%	Ekstrak 8 %	K (+)	K (-)
1	22,48	24,13	26,07	36,25	0
2	25,27	30,02	33,64	35,15	0
3	14,79	27,56	32,24	34,05	0
Rata-rata	20,85	27,24	30,65	35,15	0
SD	5,43	2,96	4,03	0,90	0

Tests of Normality[a]

		Kolmogorov-Smirnov[b]			Shapiro-Wilk		
	Kelompok_perlakuan	Statistic	df	Sig.	Statistic	df	Sig.
Diameter_Daya_hambat	Ekstrak 4%	,285	3	.	,932	3	,496
	Ekstrak 6%	,210	3	.	,991	3	,819
	Ekstrak 8%	,320	3	.	,883	3	,334
	Kontrol positif	,175	3	.	1,000	3	1,000

a. Diameter_Daya_hambat is constant when Kelompok_perlakuan = Kontrol negatif. It has been omitted.

b. Lilliefors Significance Correction

Test of Homogeneity of Variances

Diameter_Daya_hambat

Levene Statistic	df1	df2	Sig.
4,092	4	10	,032

Multiple Comparisons

Dependent Variable: Diameter_Daya_hambat

Dunnett T3

(I) Kelompok_perlakuan	(J) Kelompok_perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Kontrol negatif	Ekstrak 4%	-20,84667	3,13360	,081	-47,7102	6,0169
	Ekstrak 6%	-27,23667*	1,70797	,015	-41,8786	-12,5947
	Ekstrak 8%	-30,65000*	2,32539	,022	-50,5849	-10,7151
	Kontrol positif	-35,15000*	,63509	,001	-40,5944	-29,7056
Ekstrak 4%	Kontrol negatif	20,84667	3,13360	,081	-6,0169	47,7102
	Ekstrak 6%	-6,39000	3,56884	,614	-26,6707	13,8907
	Ekstrak 8%	-9,80333	3,90217	,335	-29,5024	9,8958
	Kontrol positif	-14,30333	3,19731	,154	-39,3578	10,7511
Ekstrak 6%	Kontrol negatif	27,23667*	1,70797	,015	12,5947	41,8786
	Ekstrak 4%	6,39000	3,56884	,614	-13,8907	26,6707
	Ekstrak 8%	-3,41333	2,88523	,883	-18,0240	11,1973
	Kontrol positif	-7,91333	1,82222	,134	-20,0699	4,2432
Ekstrak 8%	Kontrol negatif	30,65000*	2,32539	,022	10,7151	50,5849
	Ekstrak 4%	9,80333	3,90217	,335	-9,8958	29,5024
	Ekstrak 6%	3,41333	2,88523	,883	-11,1973	18,0240
	Kontrol positif	-4,50000	2,41055	,602	-22,2400	13,2400
Kontrol positif	Kontrol negatif	35,15000*	,63509	,001	29,7056	40,5944
	Ekstrak 4%	14,30333	3,19731	,154	-10,7511	39,3578
	Ekstrak 6%	7,91333	1,82222	,134	-4,2432	20,0699
	Ekstrak 8%	4,50000	2,41055	,602	-13,2400	22,2400

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

Lampiran 21. Data hasil pengujian aktivitas antimikroba sediaan serum ekstrak etanol daun teh hijau

Replikasi	Diameter zona hambat (cm)					
	F1	F2	F3	F4	K (+)	K (-)
1	24,11	22,04	20,46	16,21	23,25	0
2	19,56	19,28	19,38	18,22	23,22	0
3	23,06	22,79	20,34	15,13	33,33	0
Rata-rata	22,24	21,37	20,06	16,52	26,60	0
SD	2,38	1,84	0,59	1,57	5,83	0

Tests of Normality[a]

		Kolmogorov-Smirnov[b]			Shapiro-Wilk		
	Kelompok_perlakuan	Statistic	df	Sig.	Statistic	df	Sig.
Diameter_Daya_hambat	Formula 1 carbopol 0,25%	,301	3	.	,912	3	,424
	Formula 2 carbopol 0,5%	,308	3	.	,901	3	,390
	Formula 3 carbopol 0,75%	,349	3	.	,832	3	,194
	Formula 4 carbopol 1%	,245	3	.	,971	3	,671
	Kontrol positif	,354	3	.	,821	3	,167

a. Diameter_Daya_hambat is constant when Kelompok_perlakuan = Kontrol negatif. It has been omitted.

b. Lilliefors Significance Correction

Test of Homogeneity of Variances

Diameter_Daya_hambat

Levene Statistic	df1	df2	Sig.
7,211	5	12	,002

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Diameter_Daya_hambat

Dunnett T3

(I) Kelompok_perlakuan	(J) Kelompok_perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Kontrol negatif	Formula 1 carbopol 0,25%	-22,24333*	1,37548	,017	-35,0079	-9,4788
	Formula 2 carbopol 0,5%	-21,37000*	1,06719	,011	-31,2736	-11,4664
	Formula 3 carbopol 0,75%	-20,06000*	,34176	,001	-23,2316	-16,8884
	Formula 4 carbopol 1%	-16,52000*	,90537	,013	-24,9219	-8,1181
	Kontrol positif	-26,93333	3,21057	,061	-56,7276	2,8610
Formula 1 carbopol 0,25%	Kontrol negatif	22,24333*	1,37548	,017	9,4788	35,0079
	Formula 2 carbopol 0,5%	,87333	1,74093	1,000	-8,4439	10,1905
	Formula 3 carbopol 0,75%	2,18333	1,41730	,793	-9,3540	13,7207
	Formula 4 carbopol 1%	5,72333	1,64671	,197	-3,5813	15,0280
	Kontrol positif	-4,69000	3,49281	,871	-28,4423	19,0623
Formula 2 carbopol 0,5%	Kontrol negatif	21,37000*	1,06719	,011	11,4664	31,2736
	Formula 1 carbopol 0,25%	-,87333	1,74093	1,000	-10,1905	8,4439
	Formula 3 carbopol 0,75%	1,31000	1,12058	,923	-7,1938	9,8138
	Formula 4 carbopol 1%	4,85000	1,39950	,179	-2,4907	12,1907
	Kontrol positif	-5,56333	3,38329	,753	-30,9231	19,7964
Formula 3 carbopol 0,75%	Kontrol negatif	20,06000*	,34176	,001	16,8884	23,2316
	Formula 1 carbopol 0,25%	-2,18333	1,41730	,793	-13,7207	9,3540
	Formula 2 carbopol 0,5%	-1,31000	1,12058	,923	-9,8138	7,1938
	Formula 4 carbopol 1%	3,54000	,96773	,226	-3,3870	10,4670
	Kontrol positif	-6,87333	3,22871	,586	-36,0485	22,3018
Formula 4 carbopol 1%	Kontrol negatif	16,52000*	,90537	,013	8,1181	24,9219
	Formula 1 carbopol 0,25%	-5,72333	1,64671	,197	-15,0280	3,5813
	Formula 2 carbopol 0,5%	-4,85000	1,39950	,179	-12,1907	2,4907
	Formula 3 carbopol 0,75%	-3,54000	,96773	,226	-10,4670	3,3870
	Kontrol positif	-10,41333	3,33578	,325	-36,7128	15,8861
Kontrol positif	Kontrol negatif	26,93333	3,21057	,061	-2,8610	56,7276
	Formula 1 carbopol 0,25%	4,69000	3,49281	,871	-19,0623	28,4423
	Formula 2 carbopol 0,5%	5,56333	3,38329	,753	-19,7964	30,9231
	Formula 3 carbopol 0,75%	6,87333	3,22871	,586	-22,3018	36,0485
	Formula 4 carbopol 1%	10,41333	3,33578	,325	-15,8861	36,7128

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