L A M P I R A N

Lampiran 1. Hasil determinasi daun kelor

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.04.02/2/1554/2022 30 Agustus 2022
Hal : Keterangan Determinasi

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

Merujuk surat Saudara nomor: 854/H6-04/08.08.2022 tanggal 8 Agustus 2022 hal permohonan determinasi, dengan ini kami sampaikan bahwa hasil determinasi sampel tanaman sebagai berikut:

Nama Pemohon	: Muhammad Mahfudh
Nama Sampel	: Kelor
Sampel	: Tanaman Segar
Spesies	: *Moringa oleifera* Lam.
Sinonim	: *Guilandina moringa* L.
Familia	: Moringaceae
Penanggung Jawab	: Isna Jati Asiyah, M.Sc.

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

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

Dokumen ini ditandatangani secara elektronik melalui Aplikasi TNDE menggunakan sertifikat elektronik yang diterbitkan oleh BSrE. (1

Lampiran 2. Surat identifikasi bakteri

PRO – Technology

Laboratorium Uji Mikrobiologi
Jalan Cempaka Putih No. 69 – Jakarta Pusat
Jakarta - Indonesia

SERTIFIKAT HASIL UJI

1. Bakteri Uji : Stock Strain *Staphylococcus aereus* ATCC 25923
2. Nomor Uji Bakteri : B. 0. 1. 1
3. Tanggal Uji Bakteri : 22 - 25 Juni 2020

Uraian Hasil Uji

B. 0.1.1. Biakan Murni *Staphylococcus aereus* ATCC 25923

I. Ciri-ciri koloni :
   1. Pewarnaan Gram : Sel bulat, kecil-kecil, menggerombol, berwarna ungu, termasuk Gram positip.
   2. Di tanam pada media Vogel Jhonson Agar : Koloni warna hitam, disekitar koloni berwarna kuning.

II. Uji Fermentasi Karbohidrat dan Biokimia Penegasan

Uji Fermentasi Karbohidrat			Uji Fisiologis	
Glukosa	Asam (-)	Gas (-)	Katalase	(+) timbul gelembung gas
Laktosa	Asam (-)	Gas (-)	Koagulase (serum)	(+) serum menggumpal
Maltosa	Asam (-)	Gas (-)	Oxidase	(+)
Sukrosa	Asam (-)	Gas (-)	Manitol	(+)

Catatan:
1. Hasil Uji ini hanya berlaku untuk contoh yang diuji.

PRO - Tecnology
Laboratorium Uji Mikrobiologi
Jakarta - Indonesia

Lampiran 3. Pembuatan ekstrak daun kelor

 Pengumpulan bahan	 Penimbangan kelor segar	 Pencucian	 Penjemuran
 Daun kelor kering	 Penimbangan daun kelor kering	 Serbuk daun kelor	 Penimbangan serbuk untuk maserasi
 Serbuk dimasukkan botol maserasi	 Penyaringan	 Pemekatan ekstrak	 Ekstrak kental

Lampiran 4. Susut pengeringan serbuk, kadar sari larut etanol ekstrak dan air, kadar air ekstrak

	
Susut pengeringan serbuk	Kadar air ekstrak

Lampiran 5. Perhitungan rendemen serbuk

Didapatkan bobot basah 1200 gram, dan bobot kering 1000 gram

$$\text{Rendemen serbuk} = \frac{\text{Bobot kering (g)}}{\text{Bobot basah (g)}} \times 100\%$$

$$= \frac{1000 \text{ gram}}{1200 \text{ gram}} \times 100\%$$

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

Lampiran 6. Perhitungan rendemen ekstrak

Didapatkan berat serbuk 1000 gram dan ekstrak kental 192,42 gram

$$\text{Rendemen Ekstrak} = \frac{\text{Bobot ekstrak kental(g)}}{\text{Bobot serbuk (g)}} \times 100\%$$

$$= \frac{192{,}42 \text{ g}}{1000 \text{ g}} \times 100\%$$

$$= 19{,}24\ \%$$

Lampiran 7. Kadar sari larut air dan etanol ekstrak daun kelor

Sari larut air

Replikasi	Berat sampel	Berat cursh kosong (g)	Berat cursh+sampel konstan (g)	% Sari larut air	Rata rata (%)
1	0,5033	29,9664	30,0905	24,66	
2	0,5021	29,8711	29,9946	24,60	24,69
3	0,5010	44,3754	44,4998	24,83	

		Bobot tiap pemanasan	
Replikasi	Pemanasan 1 jam (g)	Pemanasan 1 jam kedua(g)	Pemanasan 1 jam ketiga (g)
1	30,0914	30,0909	30,0905
2	29,9951	29,9948	29,9946
3	44,5004	44,5000	44,4998

Rumus =

$$\frac{\text{(Bobot cursh+sampel)-bobot cursh kosong}}{\text{berat sampel}} \times 100\%$$

$$\text{Replikasi 1} = \frac{30,0905-29,9664}{0,5033} \times 100\%$$

$$= 24,66\%$$

$$\text{Replikasi 2} = \frac{29,9946-29,8711}{0,5021} \times 100\%$$

$$= 24,60\%$$

$$\text{Replikasi 3} = \frac{44,4998-44,3754}{0,5010} \times 100\%$$

$$= 24,83\%$$

Sari Larut Etanol

Replikasi	Berat sampel	Berat cursh kosong (g)	Berat cursh+sampel konstan (g)	% sari larut etanol	rata-rata (%)
1	0,5003	20,5839	20,7586	34,92	
2	0,5012	21,3624	21,5348	34,40	34,75
3	0,5014	21,5142	21,6894	34,94	

Replikasi		Bobot tiap pemanasan	
	Pemanasan 1 jam (g)	Pemanasan 1 jam kedua(g)	Pemanasan 1 jam ketiga (g)
1	20,7589	20,7587	20,7586
2	21,5354	21,5350	21,5348
3	21,6092	21,6897	21,6894

Rumus $= \frac{\text{(Bobot cursh+sampel)-bobot cursh kosong}}{\text{berat sampel}} \times 100\%$

Replikasi 1 $= \frac{20,7586-20,5839}{0,5003} \times 100\%$

$= 34,92\%$

Replikasi 2 $= \frac{21,5348-21,3624}{0,5012} \times 100\%$

$= 34,40\%$

Replikasi 3 $= \frac{21,6894-21,5142}{0,5014} \times 100\%$

$= 34,94\%$

Lampiran 8. Kadar air daun kelor

Replikasi	Berat cursh kosong (g)	Berat cursh+ekstrak (g)	Berat cursh+ekstrak setelah dioven (g)	Bobot ekstrak awal (g)	Bobot ekstrak akhir	Kadar air
1	40,611	50,6450	49,7535	10,034	9,1425	8,88%
2	41,079	51,1170	50,2356	10,038	9,1566	8,78%
3	40,981	51,0010	50,1389	10,020	9,1579	8,60%

Replikasi			Bobot tiap pemanasan	
	Pemanasan 5 jam (g)	Pemanasan 1 jam (g)	Pemanasan 1 jam kedua (g)	Pemanasan 1 jam ketiga (g)
1	49,7550	49,7534	49,7530	49,7535
2	50,2370	50,2362	50,2359	50,2356
3	50,1410	50,1401	50,1397	50,1389

Perhitungan:

Kadar air replikasi 1

Bobot cursh kosong = 40,611 gram

Bobot cursh+esktrak awal = 50,6450 gram

Bobot cursh+ekstrak akhir = 49,7535 gram

Bobot ekstrak awal = 50,6450-40,661

= 10,034 gram

Bobot ekstrak akhir = 49,7535-40,661

= 9,1425 gram

Kadar air $= \frac{\text{Berat awal-berat akhir}}{\text{berat awal}} \times 100\%$

$= \frac{10,024-9,1425}{10,024} \times 100\%$

$= 8,88\ \%$

Kadar air replikasi 2

Bobot cursh kosong = 41,079 gram

Bobot cursh+esktrak awal = 51,1170 gram

Bobot cursh+ekstrak akhir = 50,2356 gram

Bobot ekstrak awal = 50,6450-40,661

= 10,038 gram

Bobot ekstrak akhir = 50,2356-41,079

= 9,1566 gram

$$\text{Kadar air} = \frac{\text{Berat awal-berat akhir}}{\text{berat awal}} \times 100\%$$

$$= \frac{10,038-9,1566}{10,038} \times 100\%$$

= 8,78 %

Kadar air replikasi 3

Bobot cursh kosong = 40,981 gram

Bobot cursh+esktrak awal = 51,0010 gram

Bobot cursh+ekstrak akhir = 50,1389 gram

Bobot ekstrak awal = 51,0010-40,981

= 10,020 gram

Bobot ekstrak akhir = 50,1389-40,981

= 9,1579 gram

$$\text{Kadar air} = \frac{\text{Berat awal-berat akhir}}{\text{berat awal}} \times 100\%$$

$$= \frac{10,020-9,1579}{10,020} \times 100\%$$

= 8,60 %

Lampiran 9. Hasil identifikasi kimia ekstrak daun kelor

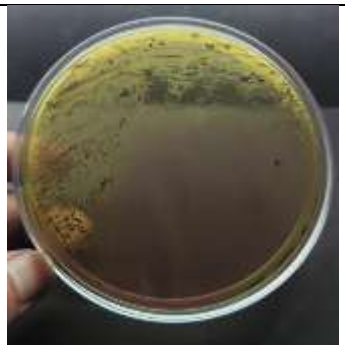
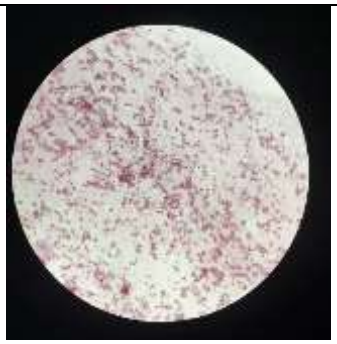
Uji	Hasil Identifikasi	Ket
Flavonoid		+
Alkaloid (Dragendorff)		+
Alkaloid (Mayer)		+
Tanin		+

Saponin		+
Steroid/Tritepenoid		+

Lampiran 10. Hasil pembuatan sediaan serum gel

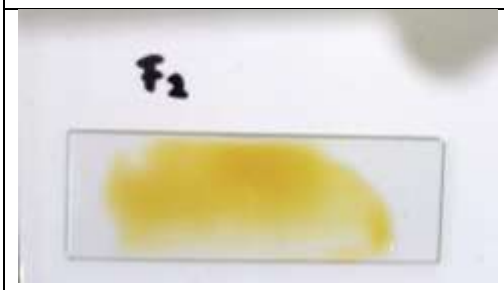
			
Kontrol negatif	Formula I	Formula II	Formula III

Lampiran 11. Hasil identifikasi bakteri Staphylococcus aureus ATCC 25923

 Identifikasi Bakteri pada Media Selektif Diferensial	 Indetifikasi Pewarnaan Gram
 Identifikasi Tes Koagulase	 Identifikasi Tes Katalase

Lampiran 12. Hasil uji homogenitas sediaan serum gel ekstrak daun kelor

Formula 1



Formula 2

Formula 3

Basis

Lampiran 13. Hasil uji pH sediaan serum gel ekstrak daun kelor

			
Uji pH kontrol negatif	Uji pH formula I	Uji pH formula II	Uji pH formula III

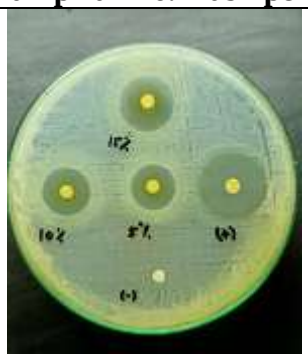
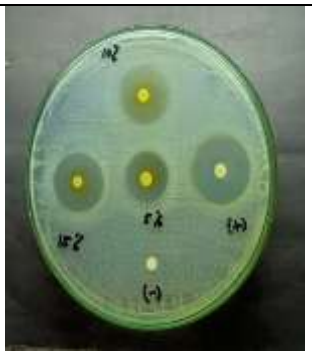
Lampiran 14. Hasil uji viskositas sediaan serum gel ekstrak daun kelor

			
Viskositas kontrol negatif	Viskositas Formula I	Viskositas Formula II	Viskositas Formula III

Lampiran 15. Hasil uji stabilitas Freeze Thaw sediaan serum gel ekstrak daun kelor

	
Sediaan ditaruh pada oven dengan suhu 40^{o}C	Sediaan ditaruh pada kulkas dengan suhu -4^{o}C

Lampiran 16. Hasil pengujian aktivitas antibakteri ekstrak daun kelor

		
Replikasi 1	Replikasi 2	Replikasi 3

Lampiran 17. Hasil pengujian aktivitas antibakteri formula serum gel ekstrak daun kelor terhadap *Staphylococcus aureus ATCC 25923*

		
Replikasi 1	Replikasi 2	Replikasi 3

Lampiran 18. Hasil uji statistika pH

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
pH	Formula 1	.175	3	.	1.000	3	1.000
	Formula 2	.175	3	.	1.000	3	1.000
	Formula 3	.175	3	.	1.000	3	1.000
	Kontrol negatif	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
pH	Based on Mean	.533	3	8	.672
	Based on Median	.533	3	8	.672
	Based on Median and with adjusted df	.533	3	5.882	.676
	Based on trimmed mean	.533	3	8	.672

ANOVA

pH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.161	3	.720	2881.900	.000
Within Groups	.002	8	.000		
Total	2.163	11			

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	Formula 2	.09000*	.01291	.001	.0487	.1313
	Formula 3	.22000*	.01291	.000	.1787	.2613
	Kontrol negatif	-.86000*	.01291	.000	-.9013	-.8187
Formula 2	Formula 1	-.09000*	.01291	.001	-.1313	-.0487
	Formula 3	.13000*	.01291	.000	.0887	.1713
	Kontrol negatif	-.95000*	.01291	.000	-.9913	-.9087
Formula 3	Formula 1	-.22000*	.01291	.000	-.2613	-.1787
	Formula 2	-.13000*	.01291	.000	-.1713	-.0887
	Kontrol negatif	-1.08000*	.01291	.000	-1.1213	-1.0387
Kontrol negatif	Formula 1	.86000*	.01291	.000	.8187	.9013
	Formula 2	.95000*	.01291	.000	.9087	.9913
	Formula 3	1.08000*	.01291	.000	1.0387	1.1213

*. 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	4
Formula 3	3	5.2400			
Formula 2	3		5.3700		
Formula 1	3			5.4600	
Kontrol negatif	3				6.3200
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.

Stabilitas pH

Tests of Normality

	formula	Kolmogorov-Smirnov[a] Statistic	df	Sig.	Shapiro-Wilk Statistic	df	Sig.
pH	Formula 1 hari ke-1	.175	3	.	1.000	3	1.000
	Formula 1 hari ke-7	.175	3	.	1.000	3	1.000
	Formula 2 hari ke-1	.175	3	.	1.000	3	1.000
	Formula 2 hari ke-7	.175	3	.	1.000	3	1.000
	Formula 3 hari ke-1	.175	3	.	1.000	3	1.000
	Formula 3 hari ke-7	.175	3	.	1.000	3	1.000
	Kontrol negatif hari ke-1	.175	3	.	1.000	3	1.000
	Kontrol negatif hari ke-7	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
pH	Based on Mean	.504	7	16	.818
	Based on Median	.504	7	16	.818
	Based on Median and with adjusted df	.504	7	10.906	.813
	Based on trimmed mean	.504	7	16	.818

ANOVA

pH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.338	7	.620	2916.076	.000
Within Groups	.003	16	.000		
Total	4.341	23			

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 hari ke-1	Formula 1 hari ke-7	.01000	.01190	.988	-.0312	.0512
	Formula 2 hari ke-1	.09000*	.01190	.000	.0488	.1312
	Formula 2 hari ke-7	.11000*	.01190	.000	.0688	.1512
	Formula 3 hari ke-1	.22000*	.01190	.000	.1788	.2612
	Formula 3 hari ke-7	.23000*	.01190	.000	.1888	.2712
	Kontrol negatif hari ke-1	-.86000*	.01190	.000	-.9012	-.8188
	Kontrol negatif hari ke-7	-.85000*	.01190	.000	-.8912	-.8088
Formula 1 hari ke-7	Formula 1 hari ke-1	-.01000	.01190	.988	-.0512	.0312
	Formula 2 hari ke-1	.08000*	.01190	.000	.0388	.1212
	Formula 2 hari ke-7	.10000*	.01190	.000	.0588	.1412
	Formula 3 hari ke-1	.21000*	.01190	.000	.1688	.2512
	Formula 3 hari ke-7	.22000*	.01190	.000	.1788	.2612
	Kontrol negatif hari ke-1	-.87000*	.01190	.000	-.9112	-.8288
	Kontrol negatif hari ke-7	-.86000*	.01190	.000	-.9012	-.8188
Formula 2 hari ke-1	Formula 1 hari ke-1	-.09000*	.01190	.000	-.1312	-.0488
	Formula 1 hari ke-7	-.08000*	.01190	.000	-.1212	-.0388
	Formula 2 hari ke-7	.02000	.01190	.699	-.0212	.0612
	Formula 3 hari ke-1	.13000*	.01190	.000	.0888	.1712
	Formula 3 hari ke-7	.14000*	.01190	.000	.0988	.1812
	Kontrol negatif hari ke-1	-.95000*	.01190	.000	-.9912	-.9088
	Kontrol negatif hari ke-7	-.94000*	.01190	.000	-.9812	-.8988
Formula 2 hari ke-7	Formula 1 hari ke-1	-.11000*	.01190	.000	-.1512	-.0688
	Formula 1 hari ke-7	-.10000*	.01190	.000	-.1412	-.0588
	Formula 2 hari ke-1	-.02000	.01190	.699	-.0612	.0212
	Formula 3 hari ke-1	.11000*	.01190	.000	.0688	.1512
	Formula 3 hari ke-7	.12000*	.01190	.000	.0788	.1612
	Kontrol negatif hari ke-1	-.97000*	.01190	.000	-1.0112	-.9288
	Kontrol negatif hari ke-7	-.96000*	.01190	.000	-1.0012	-.9188
Formula 3 hari ke-1	Formula 1 hari ke-1	-.22000*	.01190	.000	-.2612	-.1788
	Formula 1 hari ke-7	-.21000*	.01190	.000	-.2512	-.1688
	Formula 2 hari ke-1	-.13000*	.01190	.000	-.1712	-.0888
	Formula 2 hari ke-7	-.11000*	.01190	.000	-.1512	-.0688
	Formula 3 hari ke-7	.01000	.01190	.988	-.0312	.0512
	Kontrol negatif hari ke-1	-1.08000*	.01190	.000	-1.1212	-1.0388
	Kontrol negatif hari ke-7	-1.07000*	.01190	.000	-1.1112	-1.0288
Formula 3 hari ke-7	Formula 1 hari ke-1	-.23000*	.01190	.000	-.2712	-.1888
	Formula 1 hari ke-7	-.22000*	.01190	.000	-.2612	-.1788
	Formula 2 hari ke-1	-.14000*	.01190	.000	-.1812	-.0988
	Formula 2 hari ke-7	-.12000*	.01190	.000	-.1612	-.0788
	Formula 3 hari ke-1	-.01000	.01190	.988	-.0512	.0312
	Kontrol negatif hari ke-1	-1.09000*	.01190	.000	-1.1312	-1.0488
	Kontrol negatif hari ke-7	-1.08000*	.01190	.000	-1.1212	-1.0388
Kontrol negatif hari ke-1	Formula 1 hari ke-1	.86000*	.01190	.000	.8188	.9012
	Formula 1 hari ke-7	.87000*	.01190	.000	.8288	.9112
	Formula 2 hari ke-1	.95000*	.01190	.000	.9088	.9912
	Formula 2 hari ke-7	.97000*	.01190	.000	.9288	1.0112
	Formula 3 hari ke-1	1.08000*	.01190	.000	1.0388	1.1212
	Formula 3 hari ke-7	1.09000*	.01190	.000	1.0488	1.1312
	Kontrol negatif hari ke-7	.01000	.01190	.988	-.0312	.0512
Kontrol negatif hari ke-7	Formula 1 hari ke-1	.85000*	.01190	.000	.8088	.8912
	Formula 1 hari ke-7	.86000*	.01190	.000	.8188	.9012
	Formula 2 hari ke-1	.94000*	.01190	.000	.8988	.9812
	Formula 2 hari ke-7	.96000*	.01190	.000	.9188	1.0012
	Formula 3 hari ke-1	1.07000*	.01190	.000	1.0288	1.1112
	Formula 3 hari ke-7	1.08000*	.01190	.000	1.0388	1.1212
	Kontrol negatif hari ke-1	-.01000	.01190	.988	-.0512	.0312

*. 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	4
Formula 3 hari ke-7	3	5.2300			
Formula 3 hari ke-1	3	5.2400			
Formula 2 hari ke-7	3		5.3500		
Formula 2 hari ke-1	3		5.3700		
Formula 1 hari ke-7	3			5.4500	
Formula 1 hari ke-1	3			5.4600	
Kontrol negatif hari ke-7	3				6.3100
Kontrol negatif hari ke-1	3				6.3200
Sig.		.988	.699	.988	.988

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

T-Test

Group Statistics

	formula	N	Mean	Std. Deviation	Std. Error Mean
pH	Formula 1 hari ke-1	3	5.4600	.01000	.00577
	Formula 1 hari ke-7	3	5.4500	.01000	.00577

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
pH	Equal variances assumed	.000	1.000	1.225	4	.288	.01000	.00816	-.01267	.03267
	Equal variances not assumed			1.225	4.000	.288	.01000	.00816	-.01267	.03267

Lampiran 19. Hasil uji statistika Viskositas

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
Viskositas	Formula 1	.175	3	.	1.000	3	1.000
	Formula 2	.175	3	.	1.000	3	1.000
	Formula 3	.175	3	.	1.000	3	1.000
	Kontrol negatif	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Viskositas	Based on Mean	.105	3	8	.955
	Based on Median	.105	3	8	.955
	Based on Median and with adjusted df	.105	3	7.426	.955
	Based on trimmed mean	.105	3	8	.955

ANOVA

Viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5808696.000	3	1936232.000	75930.667	.000
Within Groups	204.000	8	25.500		
Total	5808900.000	11			

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	-374.00000*	4.12311	.000	-387.2036	-360.7964
	Formula 3	-1624.00000*	4.12311	.000	-1637.2036	-1610.7964
	Kontrol negatif	-1474.00000*	4.12311	.000	-1487.2036	-1460.7964
Formula 2	Formula 1	374.00000*	4.12311	.000	360.7964	387.2036
	Formula 3	-1250.00000*	4.12311	.000	-1263.2036	-1236.7964
	Kontrol negatif	-1100.00000*	4.12311	.000	-1113.2036	-1086.7964
Formula 3	Formula 1	1624.00000*	4.12311	.000	1610.7964	1637.2036
	Formula 2	1250.00000*	4.12311	.000	1236.7964	1263.2036
	Kontrol negatif	150.00000*	4.12311	.000	136.7964	163.2036
Kontrol negatif	Formula 1	1474.00000*	4.12311	.000	1460.7964	1487.2036
	Formula 2	1100.00000*	4.12311	.000	1086.7964	1113.2036
	Formula 3	-150.00000*	4.12311	.000	-163.2036	-136.7964

*. 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 1	3	138.0000			
Formula 2	3		512.0000		
Kontrol negatif	3			1612.0000	
Formula 3	3				1762.0000
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.

Stabilitas viskositas

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
Viskositas	Formula 1 hari ke-1	.175	3	.	1.000	3	1.000
	Formula 1 hari ke-7	.175	3	.	1.000	3	1.000
	Formula 2 hari ke-1	.175	3	.	1.000	3	1.000
	Formula 2 hari ke-7	.175	3	.	1.000	3	1.000
	Formula 3 hari ke-1	.175	3	.	1.000	3	1.000
	Formula 3 hari ke-7	.175	3	.	1.000	3	1.000
	kontrol negatif hari ke-1	.175	3	.	1.000	3	1.000
	kontrol negatif hari ke-7	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Viskositas	Based on Mean	.114	7	16	.996
	Based on Median	.114	7	16	.996
	Based on Median and with adjusted df	.114	7	14.527	.996
	Based on trimmed mean	.114	7	16	.996

ANOVA

Viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11588087.63	7	1655441.089	67915.532	.000
Within Groups	390.000	16	24.375		
Total	11588477.63	23			

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 hari ke-1	Formula 1 hari ke-7	2.00000	4.03113	1.000	-11.9564	15.9564
	Formula 2 hari ke-1	-374.00000*	4.03113	.000	-387.9564	-360.0436
	Formula 2 hari ke-7	-370.00000*	4.03113	.000	-383.9564	-356.0436
	Formula 3 hari ke-1	-1624.00000*	4.03113	.000	-1637.9564	-1610.0436
	Formula 3 hari ke-7	-1619.00000*	4.03113	.000	-1632.9564	-1605.0436
	kontrol negatif hari ke-1	-1474.00000*	4.03113	.000	-1487.9564	-1460.0436
	kontrol negatif hari ke-7	-1466.00000*	4.03113	.000	-1479.9564	-1452.0436
Formula 1 hari ke-7	Formula 1 hari ke-1	-2.00000	4.03113	1.000	-15.9564	11.9564
	Formula 2 hari ke-1	-376.00000*	4.03113	.000	-389.9564	-362.0436
	Formula 2 hari ke-7	-372.00000*	4.03113	.000	-385.9564	-358.0436
	Formula 3 hari ke-1	-1626.00000*	4.03113	.000	-1639.9564	-1612.0436
	Formula 3 hari ke-7	-1621.00000*	4.03113	.000	-1634.9564	-1607.0436
	kontrol negatif hari ke-1	-1476.00000*	4.03113	.000	-1489.9564	-1462.0436
	kontrol negatif hari ke-7	-1468.00000*	4.03113	.000	-1481.9564	-1454.0436
Formula 2 hari ke-1	Formula 1 hari ke-1	374.00000*	4.03113	.000	360.0436	387.9564
	Formula 1 hari ke-7	376.00000*	4.03113	.000	362.0436	389.9564
	Formula 2 hari ke-7	4.00000	4.03113	.969	-9.9564	17.9564
	Formula 3 hari ke-1	-1250.00000*	4.03113	.000	-1263.9564	-1236.0436
	Formula 3 hari ke-7	-1245.00000*	4.03113	.000	-1258.9564	-1231.0436
	kontrol negatif hari ke-1	-1100.00000*	4.03113	.000	-1113.9564	-1086.0436
	kontrol negatif hari ke-7	-1092.00000*	4.03113	.000	-1105.9564	-1078.0436
Formula 2 hari ke-7	Formula 1 hari ke-1	370.00000*	4.03113	.000	356.0436	383.9564
	Formula 1 hari ke-7	372.00000*	4.03113	.000	358.0436	385.9564
	Formula 2 hari ke-1	-4.00000	4.03113	.969	-17.9564	9.9564
	Formula 3 hari ke-1	-1254.00000*	4.03113	.000	-1267.9564	-1240.0436
	Formula 3 hari ke-7	-1249.00000*	4.03113	.000	-1262.9564	-1235.0436
	kontrol negatif hari ke-1	-1104.00000*	4.03113	.000	-1117.9564	-1090.0436
	kontrol negatif hari ke-7	-1096.00000*	4.03113	.000	-1109.9564	-1082.0436
Formula 3 hari ke-1	Formula 1 hari ke-1	1624.00000*	4.03113	.000	1610.0436	1637.9564
	Formula 1 hari ke-7	1626.00000*	4.03113	.000	1612.0436	1639.9564
	Formula 2 hari ke-1	1250.00000*	4.03113	.000	1236.0436	1263.9564
	Formula 2 hari ke-7	1254.00000*	4.03113	.000	1240.0436	1267.9564
	Formula 3 hari ke-7	5.00000	4.03113	.908	-8.9564	18.9564
	kontrol negatif hari ke-1	150.00000*	4.03113	.000	136.0436	163.9564
	kontrol negatif hari ke-7	158.00000*	4.03113	.000	144.0436	171.9564
Formula 3 hari ke-7	Formula 1 hari ke-1	1619.00000*	4.03113	.000	1605.0436	1632.9564
	Formula 1 hari ke-7	1621.00000*	4.03113	.000	1607.0436	1634.9564
	Formula 2 hari ke-1	1245.00000*	4.03113	.000	1231.0436	1258.9564
	Formula 2 hari ke-7	1249.00000*	4.03113	.000	1235.0436	1262.9564
	Formula 3 hari ke-1	-5.00000	4.03113	.908	-18.9564	8.9564
	kontrol negatif hari ke-1	145.00000*	4.03113	.000	131.0436	158.9564
	kontrol negatif hari ke-7	153.00000*	4.03113	.000	139.0436	166.9564
kontrol negatif hari ke-1	Formula 1 hari ke-1	1474.00000*	4.03113	.000	1460.0436	1487.9564
	Formula 1 hari ke-7	1476.00000*	4.03113	.000	1462.0436	1489.9564
	Formula 2 hari ke-1	1100.00000*	4.03113	.000	1086.0436	1113.9564
	Formula 2 hari ke-7	1104.00000*	4.03113	.000	1090.0436	1117.9564
	Formula 3 hari ke-1	-150.00000*	4.03113	.000	-163.9564	-136.0436
	Formula 3 hari ke-7	-145.00000*	4.03113	.000	-158.9564	-131.0436
	kontrol negatif hari ke-7	8.00000	4.03113	.520	-5.9564	21.9564
kontrol negatif hari ke-7	Formula 1 hari ke-1	1466.00000*	4.03113	.000	1452.0436	1479.9564
	Formula 1 hari ke-7	1468.00000*	4.03113	.000	1454.0436	1481.9564
	Formula 2 hari ke-1	1092.00000*	4.03113	.000	1078.0436	1105.9564
	Formula 2 hari ke-7	1096.00000*	4.03113	.000	1082.0436	1109.9564
	Formula 3 hari ke-1	-158.00000*	4.03113	.000	-171.9564	-144.0436
	Formula 3 hari ke-7	-153.00000*	4.03113	.000	-166.9564	-139.0436
	kontrol negatif hari ke-1	-8.00000	4.03113	.520	-21.9564	5.9564

*. 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 1 hari ke-7	3	136.0000			
Formula 1 hari ke-1	3	138.0000			
Formula 2 hari ke-7	3		508.0000		
Formula 2 hari ke-1	3		512.0000		
kontrol negatif hari ke-7	3			1604.0000	
kontrol negatif hari ke-1	3			1612.0000	
Formula 3 hari ke-7	3				1757.0000
Formula 3 hari ke-1	3				1762.0000
Sig.		1.000	.969	.520	.908

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

T-Test

Group Statistics

	Formula	N	Mean	Std. Deviation	Std. Error Mean
Viskositas	Formula 1 hari ke-1	3	138.0000	6.00000	3.46410
	Formula 1 hari ke-7	3	136.0000	4.00000	2.30940

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
Viskositas	Equal variances assumed	.308	.609	.480	4	.656	2.00000	4.16333	-9.55926	13.55926
	Equal variances not assumed			.480	3.485	.660	2.00000	4.16333	-10.26589	14.26589

Lampiran 20. Hasil uji statistika orientasi ekstrak daun kelor

Tests of Normality

		Kolmogorov-Smirnov[a]			
	Konsentrasi	Statistic	df	Sig.	Stat
Diameter_Zona_Hambat	Konsentrasi 5%	.253	3	.	
	Konsentrasi 10%	.274	3	.	
	Konsentrasi 15%	.312	3	.	
	Kontrol Positif	.300	3	.	

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2
Diameter_Zona_Hambat	Based on Mean	.673	3	8
	Based on Median	.179	3	8
	Based on Median and with adjusted df	.179	3	6.726
	Based on trimmed mean	.620	3	8

ANOVA

Diameter_Zona_Hambat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	207.343	3	69.114	1161.586	.000
Within Groups	.476	8	.060		
Total	207.819	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Diameter_Zona_Hambat

Tukey HSD

(I) Konsentrasi	(J) Konsentrasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Konsentrasi 5%	Konsentrasi 10%	-1.59000*	.19916	.000	-2.2278	-.9522
	Konsentrasi 15%	-3.73000*	.19916	.000	-4.3678	-3.0922
	Kontrol Positif	-10.87333*	.19916	.000	-11.5111	-10.2355
Konsentrasi 10%	Konsentrasi 5%	1.59000*	.19916	.000	.9522	2.2278
	Konsentrasi 15%	-2.14000*	.19916	.000	-2.7778	-1.5022
	Kontrol Positif	-9.28333*	.19916	.000	-9.9211	-8.6455
Konsentrasi 15%	Konsentrasi 5%	3.73000*	.19916	.000	3.0922	4.3678
	Konsentrasi 10%	2.14000*	.19916	.000	1.5022	2.7778
	Kontrol Positif	-7.14333*	.19916	.000	-7.7811	-6.5055
Kontrol Positif	Konsentrasi 5%	10.87333*	.19916	.000	10.2355	11.5111
	Konsentrasi 10%	9.28333*	.19916	.000	8.6455	9.9211
	Konsentrasi 15%	7.14333*	.19916	.000	6.5055	7.7811

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

Homogeneous Subsets

Diameter_Zona_Hambat

Tukey HSD[a]

Konsentrasi	N	Subset for alpha = 0.05			
		1	2	3	4
Konsentrasi 5%	3	19.3967			
Konsentrasi 10%	3		20.9867		
Konsentrasi 15%	3			23.1267	
Kontrol Positif	3				30.2700
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 21. Hasil uji statistika orientasi sediaan serum gel ekstrak daun kelor

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
Diameter_Zona_Hambat	Formula 1	.176	3	.	1.000	3	.977
	Formula 2	.269	3	.	.949	3	.567
	Formula 3	.277	3	.	.941	3	.531
	Kontrol negatif	.292	3	.	.923	3	.463

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Diameter_Zona_Hambat	Based on Mean	1.143	3	8	.389
	Based on Median	.544	3	8	.666
	Based on Median and with adjusted df	.544	3	5.331	.672
	Based on trimmed mean	1.098	3	8	.404

ANOVA

Diameter_Zona_Hambat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	40.163	3	13.388	333.029	.000
Within Groups	.322	8	.040		
Total	40.485	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Diameter_Zona_Hambat

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula 1	Formula 2	1.25667*	.16371	.000	.7324	1.7809
	Formula 3	2.79667*	.16371	.000	2.2724	3.3209
	Kontrol negatif	4.90333*	.16371	.000	4.3791	5.4276
Formula 2	Formula 1	-1.25667*	.16371	.000	-1.7809	-.7324
	Formula 3	1.54000*	.16371	.000	1.0158	2.0642
	Kontrol negatif	3.64667*	.16371	.000	3.1224	4.1709
Formula 3	Formula 1	-2.79667*	.16371	.000	-3.3209	-2.2724
	Formula 2	-1.54000*	.16371	.000	-2.0642	-1.0158
	Kontrol negatif	2.10667*	.16371	.000	1.5824	2.6309
Kontrol negatif	Formula 1	-4.90333*	.16371	.000	-5.4276	-4.3791
	Formula 2	-3.64667*	.16371	.000	-4.1709	-3.1224
	Formula 3	-2.10667*	.16371	.000	-2.6309	-1.5824

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

Homogeneous Subsets

Diameter_Zona_Hambat

Tukey HSD[a]

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Kontrol negatif	3	7.7800			
Formula 3	3		9.8867		
Formula 2	3			11.4267	
Formula 1	3				12.6833
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.