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Lampiran 1. Determinasi tanaman kelakai



KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

BALAI BESAR PENELITIAN DAN PENGEMBANGAN 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.04.02/2/2365/2021

18 Oktober 2021

Lampiran : -

Hal : Keterangan Determinasi

Yth. Dekan Fakultas Farmasi Universitas Setia Budi
Jalan Letjend. Sutoyo Solo 57127

Merujuk surat Saudara nomor: 430/H6-04/31.08.2021 tanggal 31 Agustus 2021 hal permohonan determinasi, dengan ini kami sampaikan bahwa hasil determinasi sampel tanaman sebagai berikut:

Nama Pemohon : Efrim Marlinandy
 Nama Sampel : Kelakai
 Sampel : Segar
 Spesies : *Stenochlaena palustris* (Burm.f.) Bedd.
 Sinonim : *Acrostichum palustre* (Burm.f.) C.B. Clarke;
Polypodium palustre Burm.f.
 Familia : Blechnaceae
 Penanggung Jawab : Nur Rahmawati Wijaya, S.Si.

Hasil determinasi tersebut hanya mencakup sampel tanaman yang telah dikirimkan ke B2P2TOOT.

Atas perhatian Saudara, kami sampaikan terima kasih.

Kepala Balai Besar Penelitian
dan Pengembangan Tanaman Obat
dan Obat Tradisional
Tawamangu,



**Akhmad Saikhu, S.K.M.,
M.Sc.PH.**
NIP 196805251992031004

Tembusan :

-

Lampiran 2. Pembuatan serbuk daun kelakai

Pengambilan daun kelakai



Sortasi basah



Pencucian



Perajangan



Pengeringan



Sortasi kering



Penyimpanan



Pembuatan serbuk



Pengayakan



Penimbangan

Lampiran 3. Perhitungan rendemen daun dan serbuk daun kelakai

Berat basah (gram)	Berat kering (gram)	Rendemen (%)
3.850	1.350	35,06

Perhitungan

$$\begin{aligned} \% \text{Rendemen} &= \frac{\text{Berat serbuk (gram)}}{\text{Berat kering (gram)}} \times 100\% \\ &= \frac{1350 \text{ g}}{3850 \text{ g}} \times 100\% = 35,06\% \end{aligned}$$

Berat daun kering (gram)	Berat serbuk (gram)	Rendemen (%)
1.350	1100	81,48

Perhitungan

$$\begin{aligned} \% \text{Rendemen} &= \frac{\text{Berat serbuk (gram)}}{\text{Berat kering (gram)}} \times 100\% \\ &= \frac{1100 \text{ g}}{1350 \text{ g}} \times 100\% = 81,48\% \end{aligned}$$

Lampiran 4. Penetapan dan perhitungan susut pengeringan serbuk daun kelakai



No.	Replikasi	Bobot awal (gram)	Susut pengeringan (%)
1.	1	2	7,9
2.	2	2	7,8
3.	3	2	7,9
Rata-rata±SD			7,86±0,04

Perhitungan

$$\text{Rata - rata} = \frac{7,9 + 7,8 + 7,9}{3} = 7,86\%$$

Lampiran 5. Perhitungan kadar air serbuk daun kelakai



No.	Penimbangan (gram)	Volume akhir (mL)	Kadar air (%v/b)
1.	20	1,5	7,5
2.	20	1,6	8
3.	20	1,4	7
Rata-rata±SD			7,5±0,40

Perhitungan

$$\% \text{Kadar air} = \frac{\text{volume air (ml)}}{\text{bobot serbuk (gram)}} \times 100\%$$

$$\begin{aligned} \text{Replikasi 1} &= \frac{1,5 \text{ ml}}{20 \text{ gram}} \times 100\% \\ &= 7,5\% \end{aligned}$$

$$\begin{aligned} \text{Replikasi 2} &= \frac{1,6 \text{ ml}}{20 \text{ gram}} \times 100\% \\ &= 8\% \end{aligned}$$

$$\begin{aligned} \text{Replikasi 3} &= \frac{1,4 \text{ ml}}{20 \text{ gram}} \times 100\% \\ &= 7\% \end{aligned}$$

Lampiran 6. Pembuatan dan perhitungan ekstrak etanol daun kelakai









Berat serbuk (gram)	Berat cawan kosong (gram)	Berat cawan + ekstrak (gram)	Hasil ekstrak kental (gram)	Rendemen (%)
1000	264	604	340	34

Perhitungan

$$\begin{aligned}
 \% \text{Rendemen} &= \frac{\text{Berat ekstrak (gram)}}{\text{Berat serbuk (gram)}} \times 100\% \\
 &= \frac{340 \text{ gram}}{1000 \text{ gram}} \times 100\% \\
 &= 34\%
 \end{aligned}$$

Lampiran 7. Gambar bahan formula krim yang digunakan dalam penelitian

<p>Vaselin album</p> 	<p>Parafin cair</p> 
<p>Asam stearat</p> 	<p>Trietanolamin (TEA)</p> 
<p>Metil paraben (Nipagin)</p> 	<p>Propil paraben (Nipasol)</p> 

Lampiran 8. Alur pembuatan formulasi krim ekstrak etanol daun kelakai

Penimbangan bahan



Penimbangan ekstrak



Pemanasan bahan

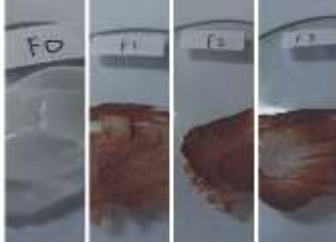


Pencampuran bahan



Sediaan jadi



Lampiran 9. Hasil uji mutu fisik krim ekstrak etanol daun kelakai**Uji homogenitas****Uji pH****Uji viskositas****Uji daya lekat**

Uji tipe emulsi

Pengenceran



Pewarnaan



Daya hantar listrik

**Uji daya sebar**

Lampiran 10. Hasil uji mutu fisik pH krim ekstrak etanol daun kelakai

FORMULA	F0	FI	FII	FIII
Replikasi 1	7,78	6,32	6,27	5,86
Replikasi 2	7,79	6,34	6,28	5,87
Replikasi 3	7,77	6,33	6,29	5,85
Rata-rata	7,78	6,33	6,28	5,86
SD	0,01	0,01	0,01	0,01
Rata-rata ± SD	7,78 ± 0,01	6,33 ± 0,01	6,28 ± 0,01	5,86 ± 0,01

Tests of Normality

Kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
pH F0	.175	3	.	1.000	3	1.000
FI	.175	3	.	1.000	3	1.000
FII	.175	3	.	1.000	3	1.000
FIII	.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	.000	3	8	1.000
Based on Median	.000	3	8	1.000
Based on Median and with adjusted df	.000	3	8.000	1.000
Based on trimmed mean	.000	3	8	1.000

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.329	3	2.110	21096.750	.000
Within Groups	.001	8	.000		
Total	6.330	11			

Multiple Comparisons

Dependent Variable: pH

Dunnett T3

(I) Kelompok	(J) Kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F0	FI	1.45000*	.00816	.000	1.4144	1.4856
	FII	1.50000*	.00816	.000	1.4644	1.5356
	FIII	1.92000*	.00816	.000	1.8844	1.9556
FI	F0	-1.45000*	.00816	.000	-1.4856	-1.4144
	FII	.05000*	.00816	.015	.0144	.0856
	FIII	.47000*	.00816	.000	.4344	.5056
FII	F0	-1.50000*	.00816	.000	-1.5356	-1.4644
	FI	-.05000*	.00816	.015	-.0856	-.0144
	FIII	.42000*	.00816	.000	.3844	.4556
FIII	F0	-1.92000*	.00816	.000	-1.9556	-1.8844
	FI	-.47000*	.00816	.000	-.5056	-.4344
	FII	-.42000*	.00816	.000	-.4556	-.3844

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

Lampiran 11. Hasil uji mutu fisik viskositas krim ekstrak etanol daun kelakai

FORMULA	F0	FI	FII	FIII
Replikasi 1	90	300	490	490
Replikasi 2	100	350	460	500
Replikasi 3	110	340	400	470
Rata-rata	100	330	450	487
SD	8,16	21,60	37,42	12,47
Rata-rata ± SD	100 ± 8,16	330 ± 21,60	450 ± 37,42	487 ± 12,47

Tests of Normality

	Viskositas	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Kelompok	F0	.175	3	.	1.000	3	1.000
	FI	.314	3	.	.893	3	.363
	FII	.253	3	.	.964	3	.637
	FIII	.253	3	.	.964	3	.637

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

Kelompok		Levene			
		Statistic	df1	df2	Sig.
Kelompok	Based on Mean	2.699	3	8	.116
	Based on Median	.871	3	8	.495
	Based on Median and with adjusted df	.871	3	4.264	.523
	Based on trimmed mean	2.528	3	8	.131

ANOVA

Kelompok

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	273900.000	3	91300.000	116.553	.000
Within Groups	6266.667	8	783.333		
Total	280166.667	11			

Multiple Comparisons

Dependent Variable: Kelompok

Dunnett T3

(I) Viskositas	(J) Viskositas	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F0	FI	-230.000*	16.330	.006	-327.12	-132.88
	FII	-350.000*	27.080	.013	-537.21	-162.79
	FIII	-386.667*	10.541	.000	-436.83	-336.50
FI	F0	230.000*	16.330	.006	132.88	327.12
	FII	-120.000	30.551	.097	-272.72	32.72
	FIII	-156.667*	17.638	.009	-244.84	-68.49
FII	F0	350.000*	27.080	.013	162.79	537.21
	FI	120.000	30.551	.097	-32.72	272.72
	FIII	-36.667	27.889	.728	-209.96	136.63
FIII	F0	386.667*	10.541	.000	336.50	436.83
	FI	156.667*	17.638	.009	68.49	244.84
	FII	36.667	27.889	.728	-136.63	209.96

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

Lampiran 12. Hasil uji mutu fisik daya lekat krim ekstrak etanol daun kelakai

FORMULA	F0	FI	FII	FIII
Replikasi 1	2	170	180	192
Replikasi 2	3	172	182	195
Replikasi 3	5	174	186	194
Rata-rata	3	172	183	194
SD	1,25	1,63	2,49	1,25
Rata-rata ± SD	3 ± 0,47	172 ± 1,63	183 ± 2,49	194 ± 1,25

Tests of Normality

	DayaLekat	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Kelompok	F0	.253	3	.	.964	3	.637
	FI	.175	3	.	1.000	3	1.000
	FII	.253	3	.	.964	3	.637
	FIII	.253	3	.	.964	3	.637

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

Kelompok		Levene			
		Statistic	df1	df2	Sig.
Kelompok	Based on Mean	.795	3	8	.530
	Based on Median	.364	3	8	.781
	Based on Median and with adjusted df	.364	3	5.438	.782
	Based on trimmed mean	.762	3	8	.546

ANOVA

Kelompok

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	73154.917	3	24384.972	5418.883	.000
Within Groups	36.000	8	4.500		
Total	73190.917	11			

Multiple Comparisons

Dependent Variable: Kelompok

Dunnett T3

(I) DayaLekat	(J) DayaLekat	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F0	FI	-168.667*	1.453	.000	-175.25	-162.08
	FII	-179.333*	1.972	.000	-189.81	-168.86
	FIII	-190.333*	1.247	.000	-195.78	-184.89
FI	F0	168.667*	1.453	.000	162.08	175.25
	FII	-10.667*	2.108	.042	-20.70	-.63
	FIII	-21.667*	1.453	.001	-28.25	-15.08
FII	F0	179.333*	1.972	.000	168.86	189.81
	FI	10.667*	2.108	.042	.63	20.70
	FIII	-11.000*	1.972	.044	-21.47	-.53
FIII	F0	190.333*	1.247	.000	184.89	195.78
	FI	21.667*	1.453	.001	15.08	28.25
	FII	11.000*	1.972	.044	.53	21.47

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

Lampiran 13. Hasil uji mutu fisik daya sebar krim ekstrak etanol daun kelakai

Formula	Beban (g)	Replikasi 1	Replikasi 2	Replikasi 3	Rata-rata	SD
F0	Tanpa beban	3,9	4,2	4,1	4,1	0,12
	50	4,5	4,6	4,6	4,6	0,05
	100	4,9	5	5,3	5,1	0,17
F1	Tanpa beban	2	2,1	2,2	2,1	0,08
	50	2	2,3	2,4	2,2	0,17
	100	2	2,4	2,5	2,3	0,22
FII	Tanpa beban	1,8	2	2,1	2,0	0,12
	50	1,8	2,2	2,3	2,1	0,22
	100	1,9	2,4	2,3	2,2	0,22
FIII	Tanpa beban	1,7	1,6	1,5	1,6	0,08
	50	1,8	1,9	2	1,9	0,08
	100	1,8	2,1	2,2	2,0	0,17

Tests of Normality

	DayaSebar	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Kelompok	0	.292	3	.	.923	3	.463
	1	.314	3	.	.893	3	.363
	2	.314	3	.	.893	3	.363
	3	.292	3	.	.923	3	.463

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene			
		Statistic	df1	df2	Sig.
Kelompok	Based on Mean	.232	3	8	.872
	Based on Median	.033	3	8	.991
	Based on Median and with adjusted df	.033	3	7.339	.991
	Based on trimmed mean	.205	3	8	.890

ANOVA

Kelompok

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.887	3	6.296	111.098	.000
Within Groups	.453	8	.057		
Total	19.340	11			

Multiple Comparisons

Dependent Variable: Kelompok

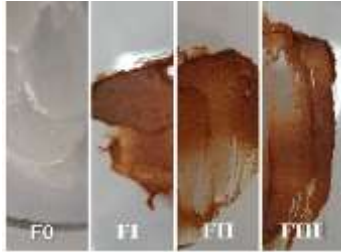
Dunnett T3

(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0	1	2.7667*	.1944	.001	1.892	3.641
	2	2.8667*	.1944	.001	1.992	3.741
	3	3.0333*	.1700	.000	2.291	3.775
1	0	-2.7667*	.1944	.001	-3.641	-1.892
	2	.1000	.2160	.995	-.843	1.043
	3	.2667	.1944	.693	-.608	1.141
2	0	-2.8667*	.1944	.001	-3.741	-1.992
	1	-.1000	.2160	.995	-1.043	.843
	3	.1667	.1944	.925	-.708	1.041
3	0	-3.0333*	.1700	.000	-3.775	-2.291
	1	-.2667	.1944	.693	-1.141	.608
	2	-.1667	.1944	.925	-1.041	.708

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

Lampiran 14. Hasil uji stabilitas krim ekstrak etanol daun kelakai

Uji homogenitas



Uji pH



Uji viskositas



Uji daya lekat



Uji tipe emulsi
Pengenceran



Uji daya sebar



Pewarnaan



Daya hantar listrik



Lampiran 15. Hasil uji stabilitas pH krim ekstrak etanol daun kelakai

Sebelum metode *Cycling test*

Sesudah metode *Cycling test*

FORMULA	F0	FI	FII	FIII
Replikasi 1	7,78	6,32	6,27	5,86
Replikasi 2	7,79	6,34	6,28	5,87
Replikasi 3	7,77	6,33	6,29	5,85
Rata-rata	7,78	6,33	6,28	5,86
SD	0,01	0,01	0,01	0,01
Rata-rata ± SD	7,78 ± 0,01	6,33 ± 0,01	6,28 ± 0,01	5,86 ± 0,01

FORMULA	F0	FI	FII	FIII
Replikasi 1	7,56	6,05	6	5,84
Replikasi 2	7,53	6,02	5,97	5,85
Replikasi 3	7,55	6,03	5,96	5,87
Rata-rata	7,55	6,03	5,98	5,85
SD	0,01	0,01	0,02	0,01
Rata-rata ± SD	7,55 ± 0,01	6,01 ± 0,01	5,98 ± 0,02	5,85 ± 0,01

Tests of Normality

	pH	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Sebelum	.00	.175	3	.	1.000	3	1.000
	1.00	.175	3	.	1.000	3	1.000
	2.00	.175	3	.	1.000	3	1.000
	3.00	.175	3	.	1.000	3	1.000
Sesudah	.00	.253	3	.	.964	3	.637
	1.00	.253	3	.	.964	3	.637
	2.00	.337	3	.	.855	3	.253
	3.00	.253	3	.	.964	3	.637

a. Lilliefors Significance Correction

Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Sebelum - Sesudah	.20750	.12679	.03660	.12694	.28806	5.669	11	.000

Lampiran 16. Hasil uji stabilitas viskositas krim ekstrak etanol daun kelakai

Sebelum metode *Cycling test*

FORMULA	F0	FI	FII	FIII
Replikasi 1	90	300	490	490
Replikasi 2	100	350	460	500
Replikasi 3	110	340	400	470
Rata-rata	100	330	450	487
SD	8,16	21,60	37,42	12,47
Rata-rata ± SD	100 ± 8,16	330 ± 21,60	450 ± 37,42	487 ± 12,47

Sesudah metode *Cycling test*

FORMULA	F0	FI	FII	FIII
Replikasi 1	80	330	460	500
Replikasi 2	90	350	450	490
Replikasi 3	100	300	400	450
Rata-rata	90	327	437	480
SD	8,16	20,55	26,25	21,60
Rata-rata ± SD	90 ± 8,16	327 ± 20,55	437 ± 26,5	480 ± 21,60

Tests of Normality

	Viskositas	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Sebelum	F0	.175	3	.	1.000	3	1.000
	FI	.314	3	.	.893	3	.363
	FII	.253	3	.	.964	3	.637
	FIII	.253	3	.	.964	3	.637
Sesudah	F0	.175	3	.	1.000	3	1.000
	FI	.219	3	.	.987	3	.780
	FII	.328	3	.	.871	3	.298
	FIII	.314	3	.	.893	3	.363

a. Lilliefors Significance Correction

Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Sebelum - Sesudah	8.333	18.007	5.198	-3.108	19.774	1.603	11	.137

Lampiran 17. Hasil uji stabilitas daya lekat krim ekstrak etanol daun kelakai

Sebelum metode *Cycling test*

FORMULA	F0	FI	FII	FIII
Replikasi 1	2	170	180	192
Replikasi 2	3	172	182	195
Replikasi 3	5	174	186	194
Rata-rata	3	172	183	194
SD	1,25	1,63	2,49	1,25
Rata-rata ± SD	3 ± 0,47	172 ± 1,63	183 ± 2,49	194 ± 1,25

Sesudah metode *Cycling test*

FORMULA	F0	FI	FII	FIII
Replikasi 1	2	160	165	186
Replikasi 2	1	163	166	184
Replikasi 3	3	164	162	183
Rata-rata	2	162	164	184
SD	0,82	1,70	1,70	1,25
Rata-rata ± SD	2 ± 0,47	162 ± 1,70	164 ± 1,70	184 ± 1,25

Tests of Normality

	DayaLekat	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Sebelum	F0	.253	3	.	.964	3	.637
	FI	.175	3	.	1.000	3	1.000
	FII	.253	3	.	.964	3	.637
	FIII	.253	3	.	.964	3	.637
Sesudah	F0	.175	3	.	1.000	3	1.000
	FI	.292	3	.	.923	3	.463
	FII	.292	3	.	.923	3	.463
	FIII	.253	3	.	.964	3	.637

a. Lilliefors Significance Correction

Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Sebelum - Sesudah	9.667	6.760	1.951	5.372	13.962	4.954	11	.000

Lampiran 18. Hasil uji stabilitas daya sebar krim ekstrak etanol daun kelakai

Sebelum metode *Cycling test*

Formula	Beban (g)	Replikasi 1	Replikasi 2	Replikasi 3	Rata-rata	SD
F0	Tanpa beban	3,9	4,2	4,1	4,1	0,12
	50	4,5	4,6	4,6	4,6	0,05
	100	4,9	5	5,3	5,1	0,17
FI	Tanpa beban	2	2,1	2,2	2,1	0,08
	50	2	2,3	2,4	2,2	0,17
	100	2	2,4	2,5	2,3	0,22
FII	Tanpa beban	1,8	2	2,1	2,0	0,12
	50	1,8	2,2	2,3	2,1	0,22
	100	1,9	2,4	2,3	2,2	0,22
FIII	Tanpa beban	1,7	1,6	1,5	1,6	0,08
	50	1,8	1,9	2	1,9	0,08
	100	1,8	2,1	2,2	2,0	0,17

Sesudah metode *Cycling test*

Formula	Beban (g)	Replikasi 1	Replikasi 2	Replikasi 3	Rata-rata	SD
F0	Tanpa beban	4,9	5,2	5	5,0	0,12
	50	5,4	5,5	5,3	5,4	0,08
	100	6,2	6	5,7	6,0	0,21
FI	Tanpa beban	2,3	2	2	2,1	0,14
	50	2,4	2,4	2,4	2,4	0,00
	100	2,6	2,4	2,8	2,6	0,16
FII	Tanpa beban	2	2	2	2,0	0,00
	50	2,2	2,4	2,3	2,3	0,08
	100	2,4	2,3	2,5	2,4	0,08
FIII	Tanpa beban	1,9	1,9	1,7	1,8	0,09
	50	2	2,2	2,3	2,2	0,12
	100	2,2	2,1	2,5	2,3	0,17

Tests of Normality

	DayaSebar	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Sebelum	0	.292	3	.	.923	3	.463
	1	.314	3	.	.893	3	.363
	2	.314	3	.	.893	3	.363
	3	.292	3	.	.923	3	.463
Sesudah	0	.219	3	.	.987	3	.780
	1	.175	3	.	1.000	3	1.000
	2	.175	3	.	1.000	3	1.000
	3	.292	3	.	.923	3	.463

a. Lilliefors Significance Correction

Paired Samples Test

	Mean	Std. Deviation	Paired Differences				t	df	Sig. (2-tailed)
			Std. Error	95% Confidence Interval of the Difference					
				Mean	Lower	Upper			
Pair 1 Sebelum - Sesudah	-.4083	.4100	.1184	-.6688	-.1478	-3.450	11	.005	

Lampiran 19. Certificate of Analysis (COA) DPPH



PT. SMART-LAB INDONESIA
MANUFACTURER OF ANALYTICAL REAGENTS



CERTIFICATE OF ANALYSIS

Product Name	: 2,2-Diphenyl-1-picrylhydrazyl (Free radical)	Molecular Weight	: 394.32 g/mol
Catalog No.	: A 2095	Batch No.	: 221220001
Grade	: Analytical Reagent	Manufacturing Date	: December 22, 2020
Formula	: $C_{18}H_{12}N_2O_6$	Expire Date	: December , 2025
Cas No	: 1898-66-4		

NO	ITEM TEST	UNITS	SPECIFICATION	RESULT
1.	Appearance	-	Purple black or green powder	Conform
2.	Assay	wt %	min 85.0	86.33
3.	Melting point	°C	125 - 145	127.7

Result : The above product corresponds to AR Grade

Reference or standard of product specification to Analak standard specification

PT. SMART LAB INDONESIA



SUDIROS S. SI
Head QC

Lampiran 20. Certificate of Analysis (COA) kuersetin

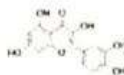


3050 Spruce Street, Saint Louis, MO 63103, USA
 Website: www.sigmaaldrich.com
 Email USA: techserv@sial.com
 Outside USA: eurtechserv@sial.com

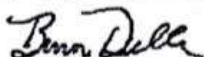
Certificate of Analysis

Product Name:
 Quercetin - ≥95% (HPLC), solid

Product Number: Q4951
 Batch Number: SLCJ0103
 Brand: SIGMA
 CAS Number: 117-39-5
 Formula: C15H10O7
 Formula Weight: 302.24 g/mol
 Quality Release Date: 10 DEC 2020



Test	Specification	Result
Appearance (Color) Yellow	Conforms	Conforms
Appearance (Form)	Powder	Powder
¹ H NMR Spectrum	Conforms to Structure	Conforms
Loss on Drying	≤ 4 %	3 %
Purity (HPLC)	≥ 95 %	97 %



Brian Dulle, Supervisor
 Quality Assurance
 St. Louis, Missouri US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at SigmaAldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



Lampiran 21. *Certificate of Analysis (COA) etanol p.a*

Certificate of Analysis

1.00983.2500 Ethanol absolute for analysis EMSURE® ACS,ISO,Reag. Ph Eur
Batch K52687883

	Spec. Values		Batch Values	
Purity (GC)	≥ 99.9	%	99.9	%
Identity (IR)	conforms		conforms	
Appearance	conforms		conforms	
Color	≤ 10	Hazen	< 5	Hazen
Solubility in water	conforms		conforms	
Acidity or alkalinity	≤ 30	ppm	≤ 30	ppm
Titration acid	≤ 0.0002	meq/g	0.0001	meq/g
Titration base	≤ 0.0002	meq/g	< 0.0002	meq/g
Density (d 20 °C/20 °C)	0.790 - 0.793		0.791	
UV absorption	conforms		conforms	
Aldehydes (as Acetaldehyd)	≤ 0.001	%	≤ 0.001	%
Fusel oils	conforms		conforms	
Substances reducing potassium permanganate (as O)	≤ 0.0002	%	≤ 0.0002	%
Substances reducing permanganate (ACS)	conforms		conforms	
Carbonyl compounds (as CO)	≤ 0.003	%	≤ 0.003	%
Readily carbonizable substances	conforms		conforms	
Acetone, Isopropyl Alcohol (ACS)	conforms		conforms	
Acetone (GC)	≤ 0.001	%	< 0.001	%
Ethylmethylketone (GC)	≤ 0.02	%	< 0.01	%
Isoamyl alcohol (GC)	≤ 0.05	%	< 0.01	%
2-Propanol (GC)	≤ 0.01	%	< 0.01	%
Higher alcohols (GC)	≤ 0.01	%	< 0.01	%
Volatile impurities (GC) (Acetaldehyde and Acetal)	≤ 10	ppm	< 10	ppm
Volatile impurities (GC) (Benzene)	≤ 2	ppm	< 1	ppm
Volatile impurities (GC) (Methanol)	≤ 100	ppm	< 50	ppm
Volatile impurities (GC) (Total of other impurities)	≤ 300	ppm	< 100	ppm
Volatile impurities (GC) (disregard limit)	≤ 9	ppm	9	ppm
Chloride (Cl)	≤ 0.3	ppm	< 0.1	ppm
Nitrate (NO ₃)	≤ 0.3	ppm	< 0.1	ppm
Phosphate (PO ₄)	≤ 0.3	ppm	< 0.1	ppm
Sulfate (SO ₄)	≤ 0.3	ppm	< 0.1	ppm
Ag (Silver)	≤ 0.000002	%	≤ 0.000002	%
Al (Aluminium)	≤ 0.00005	%	≤ 0.00005	%
As (Arsenic)	≤ 0.000002	%	≤ 0.000002	%
Au (Gold)	≤ 0.000002	%	≤ 0.000002	%
Ba (Barium)	≤ 0.00001	%	≤ 0.00001	%
Be (Beryllium)	≤ 0.000002	%	≤ 0.000002	%
Bi (Bismuth)	≤ 0.000002	%	≤ 0.000002	%
Ca (Calcium)	≤ 0.00005	%	≤ 0.00005	%

Certificate of Analysis

1.00983.2500 Ethanol absolute for analysis EMSURE® ACS,ISO,Reag. Ph Eur
Batch K52687883

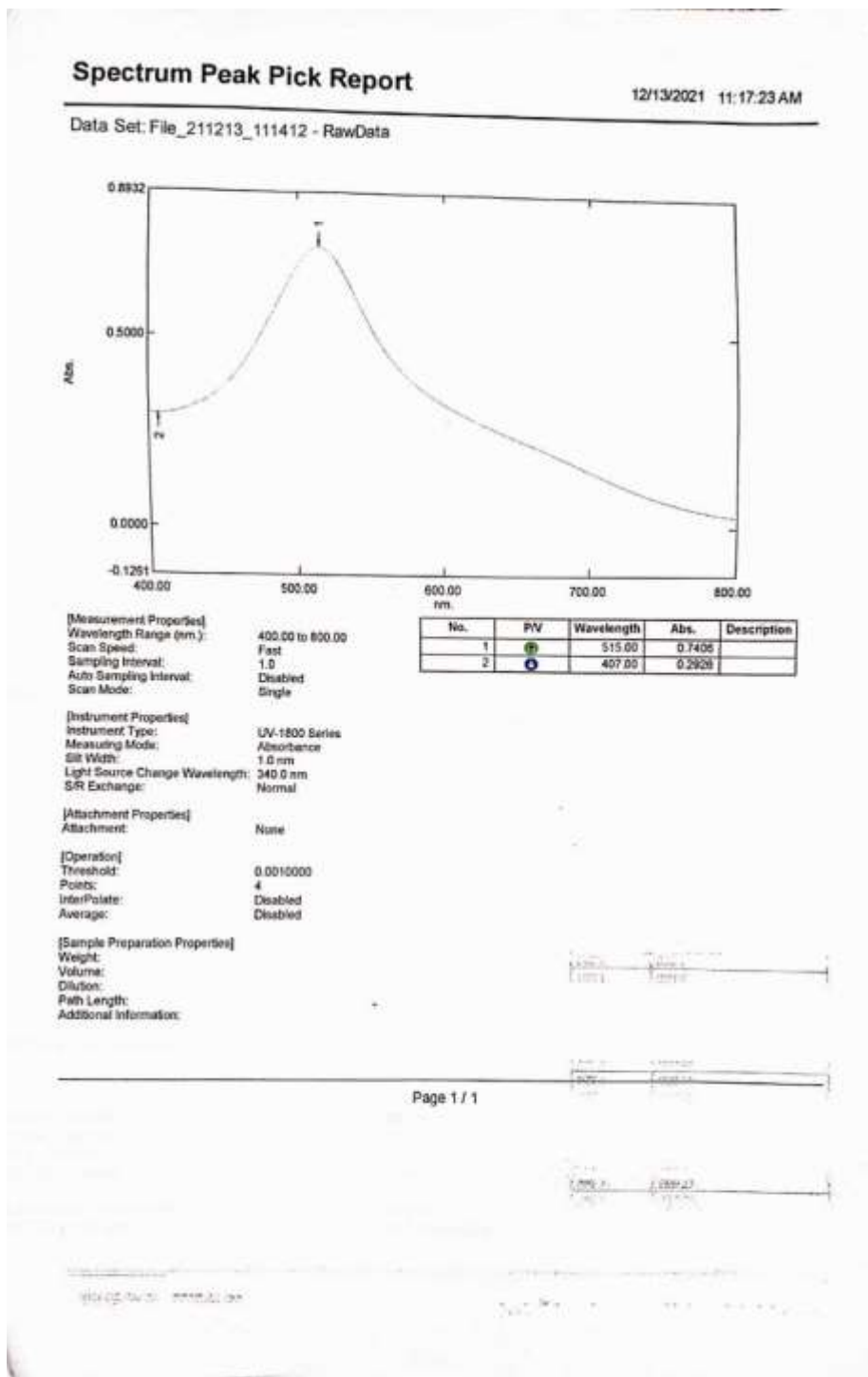
Cd (Cadmium)	≤ 0.000005	%	≤ 0.000005	%
Co (Cobalt)	≤ 0.000002	%	≤ 0.000002	%
Cr (Chromium)	≤ 0.000002	%	≤ 0.000002	%
Cu (Copper)	≤ 0.000002	%	≤ 0.000002	%
Fe (Iron)	≤ 0.00001	%	≤ 0.00001	%
Ga (Gallium)	≤ 0.000002	%	≤ 0.000002	%
In (Indium)	≤ 0.000002	%	≤ 0.000002	%
Li (Lithium)	≤ 0.000002	%	≤ 0.000002	%
Mg (Magnesium)	≤ 0.00001	%	≤ 0.00001	%
Mn (Manganese)	≤ 0.000002	%	≤ 0.000002	%
Mo (Molybdenum)	≤ 0.000002	%	≤ 0.000002	%
Ni (Nickel)	≤ 0.000002	%	≤ 0.000002	%
Pb (Lead)	≤ 0.00001	%	≤ 0.00001	%
Pt (Platinum)	≤ 0.000002	%	≤ 0.000002	%
Sb (Antimony)	≤ 0.000002	%	≤ 0.000002	%
Sn (Tin)	≤ 0.00001	%	≤ 0.00001	%
Ti (Titanium)	≤ 0.000002	%	≤ 0.000002	%
Tl (Thallium)	≤ 0.000002	%	≤ 0.000002	%
V (Vanadium)	≤ 0.000002	%	≤ 0.000002	%
Zn (Zinc)	≤ 0.00001	%	≤ 0.00001	%
Zr (Zirconium)	≤ 0.000002	%	≤ 0.000002	%
Evaporation residue	≤ 0.0005	%	0.0001	%
Water	≤ 0.1	%	< 0.1	%

Date of release (DD.MM.YYYY) 03.08.2020
Minimum shelf life (DD.MM.YYYY) 30.06.2025

Jeannette David
Responsible laboratory manager quality control

This document has been produced electronically and is valid without a signature.

Lampiran 22. Penentuan panjang gelombang DPPH



Lampiran 23. Operating time (OT) kuersetin

Time (Minute)	RawData ...
51.000	0.667
52.000	0.667
53.000	0.666
54.000	0.666
55.000	0.668
56.000	0.665
57.000	0.665
58.000	0.665
59.000	0.664
60.000	0.664

Kinetics Data Print Report

10/19/2021 01:40:58 PM

Time (Minute)	RawData ...
0.000	0.739
1.000	0.726
2.000	0.718
3.000	0.713
4.000	0.709
5.000	0.706
6.000	0.703
7.000	0.701
8.000	0.699
9.000	0.698
10.000	0.696
11.000	0.695
12.000	0.694
13.000	0.692
14.000	0.691
15.000	0.690
16.000	0.689
17.000	0.688
18.000	0.687
19.000	0.686
20.000	0.685
21.000	0.685
22.000	0.684
23.000	0.683
24.000	0.682
25.000	0.681
26.000	0.681
27.000	0.680
28.000	0.679
29.000	0.679
30.000	0.678
31.000	0.677
32.000	0.677
33.000	0.676
34.000	0.676
35.000	0.675
36.000	0.675
37.000	0.674
38.000	0.674
39.000	0.673
40.000	0.672
41.000	0.672
42.000	0.671
43.000	0.671
44.000	0.671
45.000	0.670
46.000	0.669
47.000	0.669
48.000	0.669
49.000	0.668
50.000	0.668

$k_{obs} = 2 \text{ ppm}$

$$A_{obs} = \epsilon_{obs} \cdot c \cdot l$$

$$= \epsilon_{obs} \cdot (c_0 - kt) \cdot l$$

$$= \epsilon_{obs} \cdot c_0 \cdot l - \epsilon_{obs} \cdot kt \cdot l$$

$$A_{obs} = A_{\infty} - k_{obs} \cdot t$$

$$k_{obs} = \frac{A_{\infty} - A_{obs}}{t}$$

$$k_{obs} = \frac{0.739 - 0.668}{50.000 - 0.000}$$

$$k_{obs} = 0.00142 \text{ min}^{-1}$$

Lampiran 24. *Operating time (OT)* ekstrak etanol daun kelakai

Kinetics Data Print Report

12/14/2021 01:33:56 PM

Time (Minute)	RawData ...
0.000	0.429
1.000	0.413
2.000	0.400
3.000	0.389
4.000	0.379
5.000	0.371
6.000	0.363
7.000	0.357
8.000	0.351
9.000	0.346
10.000	0.342
11.000	0.338
12.000	0.334
13.000	0.330
14.000	0.327
15.000	0.324
16.000	0.321
17.000	0.318
18.000	0.316
19.000	0.313
20.000	0.311
21.000	0.309
22.000	0.307
23.000	0.305
24.000	0.303
25.000	0.301
26.000	0.299
27.000	0.298
28.000	0.296
29.000	0.295
30.000	0.293
31.000	0.292
32.000	0.290
33.000	0.289
34.000	0.288
35.000	0.286
36.000	0.285
37.000	0.284
38.000	0.283
39.000	0.282
40.000	0.281
41.000	0.280
42.000	0.279
43.000	0.278
44.000	0.277
45.000	0.276
46.000	0.275
47.000	0.274
48.000	0.273
49.000	0.273
50.000	0.271

Time (Minute)	RawData ...
51.000	0.271
52.000	0.270
53.000	0.269
54.000	0.268
55.000	0.267
56.000	0.266
57.000	0.266
58.000	0.265
59.000	0.264
60.000	0.263



Lampiran 25. *Operating time (OT) krim pasaran*

Kinetics Data Print Report

01/31/2022 01:44:49 PM

Time (Minute)	RawData ...
0.000	0.428
1.000	0.427
2.000	0.428
3.000	0.427
4.000	0.428
5.000	0.427
6.000	0.428
7.000	0.428
8.000	0.428
9.000	0.428
10.000	0.428
11.000	0.428
12.000	0.428
13.000	0.428
14.000	0.429
15.000	0.429
16.000	0.429
17.000	0.429
18.000	0.429
19.000	0.429
20.000	0.429
21.000	0.429
22.000	0.429
23.000	0.430
24.000	0.430
25.000	0.430
26.000	0.430
27.000	0.430
28.000	0.430
29.000	0.430
30.000	0.430
31.000	0.430
32.000	0.430
33.000	0.431
34.000	0.431
35.000	0.430
36.000	0.431
37.000	0.431
38.000	0.431
39.000	0.431
40.000	0.431
41.000	0.431
42.000	0.432
43.000	0.432
44.000	0.432
45.000	0.432
46.000	0.432
47.000	0.432
48.000	0.432
49.000	0.432
50.000	0.432

0,413

0,418

Time (Minute)	RawData ...
51.000	0.432
52.000	0.432
53.000	0.432
54.000	0.433
55.000	0.432
56.000	0.432
57.000	0.432
58.000	0.433
59.000	0.433
60.000	0.433

Lampiran 26. *Operating time (OT) F0*

Kinetics Data Print Report

01/28/2022 02:30:01 PM

Time (Minute)	RawData ...
0.000	0.519
1.000	0.517
2.000	0.518
3.000	0.514
4.000	0.513
5.000	0.512
6.000	0.512
7.000	0.511
8.000	0.510
9.000	0.511
10.000	0.509
11.000	0.509
12.000	0.509
13.000	0.509
14.000	0.509
15.000	0.508
16.000	0.508
17.000	0.508
18.000	0.508
19.000	0.508
20.000	0.508
21.000	0.508
22.000	0.508
23.000	0.508
24.000	0.508
25.000	0.507
26.000	0.507
27.000	0.507
28.000	0.507
29.000	0.507
30.000	0.507
31.000	0.507
32.000	0.507
33.000	0.507
34.000	0.507
35.000	0.507
36.000	0.507
37.000	0.507
38.000	0.507
39.000	0.507
40.000	0.507
41.000	0.507
42.000	0.506
43.000	0.506
44.000	0.507
45.000	0.506
46.000	0.506
47.000	0.507
48.000	0.507
49.000	0.507
50.000	0.507

Time (Minute)	RawData ...
51.000	0.507
52.000	0.507
53.000	0.507
54.000	0.507
55.000	0.507
56.000	0.507
57.000	0.507
58.000	0.507
59.000	0.507
60.000	0.507

Lampiran 27. *Operating time (OT) FI*

Kinetics Data Print Report

01/28/2022 02:00:40 PM

Time (Minute)	RawData ...
0.000	0.369
1.000	0.368
2.000	0.366
3.000	0.365
4.000	0.365
5.000	0.365
6.000	0.364
7.000	0.363
8.000	0.363
9.000	0.363
10.000	0.363
11.000	0.362
12.000	0.362
13.000	0.362
14.000	0.362
15.000	0.363
16.000	0.362
17.000	0.362
18.000	0.362
19.000	0.361
20.000	0.362
21.000	0.362
22.000	0.362
23.000	0.362
24.000	0.362
25.000	0.362
26.000	0.362
27.000	0.363
28.000	0.363
29.000	0.363
30.000	0.363
31.000	0.364
32.000	0.363
33.000	0.364
34.000	0.364
35.000	0.365
36.000	0.365
37.000	0.365
38.000	0.365
39.000	0.366
40.000	0.366
41.000	0.366
42.000	0.367
43.000	0.367
44.000	0.368
45.000	0.368
46.000	0.368
47.000	0.369
48.000	0.369
49.000	0.369
50.000	0.370

Time (Minute)	RawData ...
51.000	0.370
52.000	0.371
53.000	0.371
54.000	0.371
55.000	0.372
56.000	0.371
57.000	0.372
58.000	0.372
59.000	0.372
60.000	0.374

Lampiran 28. *Operating time (OT) FII*

Kinetics Data Print Report

01/28/2022 01:08:50 PM

Time (Minute)	RawData
0.000	0.376
1.000	0.376
2.000	0.375
3.000	0.375
4.000	0.375
5.000	0.375
6.000	0.374
7.000	0.374
8.000	0.375
9.000	0.374
10.000	0.374
11.000	0.374
12.000	0.373
13.000	0.373
14.000	0.373
15.000	0.373
16.000	0.373
17.000	0.373
18.000	0.373
19.000	0.373
20.000	0.373
21.000	0.373
22.000	0.373
23.000	0.374
24.000	0.374
25.000	0.373
26.000	0.374
27.000	0.374
28.000	0.374
29.000	0.374
30.000	0.375
31.000	0.375
32.000	0.375
33.000	0.375
34.000	0.375
35.000	0.375
36.000	0.376
37.000	0.376
38.000	0.376
39.000	0.376
40.000	0.377
41.000	0.377
42.000	0.377
43.000	0.377
44.000	0.378
45.000	0.377
46.000	0.378
47.000	0.378
48.000	0.378
49.000	0.378
50.000	0.379

Time (Minute)	RawData
51.000	0.379
52.000	0.379
53.000	0.379
54.000	0.380
55.000	0.380
56.000	0.379
57.000	0.381
58.000	0.380
59.000	0.380
60.000	0.380

Lampiran 29. *Operating time (OT) FIII*

Kinetics Data Print Report

01/28/2022 12:28:16 PM

Time (Minute)	RawData ...
0.000	0.362
1.000	0.361
2.000	0.363
3.000	0.361
4.000	0.362
5.000	0.362
6.000	0.362
7.000	0.362
8.000	0.362
9.000	0.363
10.000	0.363
11.000	0.363
12.000	0.364
13.000	0.364
14.000	0.365
15.000	0.366
16.000	0.366
17.000	0.366
18.000	0.366
19.000	0.367
20.000	0.367
21.000	0.368
22.000	0.368
23.000	0.369
24.000	0.370
25.000	0.370
26.000	0.370
27.000	0.371
28.000	0.372
29.000	0.372
30.000	0.373
31.000	0.373
32.000	0.373
33.000	0.374
34.000	0.375
35.000	0.375
36.000	0.376
37.000	0.376
38.000	0.378
39.000	0.378
40.000	0.380
41.000	0.381
42.000	0.381
43.000	0.383
44.000	0.383
45.000	0.384
46.000	0.386
47.000	0.387
48.000	0.387
49.000	0.388
50.000	0.388

Time (Minute)	RawData ...
51.000	0.389
52.000	0.390
53.000	0.391
54.000	0.392
55.000	0.393
56.000	0.393
57.000	0.394
58.000	0.395
59.000	0.396
60.000	0.397

Lampiran 30. Hasil uji aktivitas antioksidan krim ekstrak etanol daun kelakai

PENIMBANGAN SERBUK DPPH

Penimbangan Serbuk DPPH = BM DPPH x Volume Larutan x Molaritas DPPH

$$= 394,32 \text{ g/mol} \times 0,100 \text{ Liter} \times 0004 \text{ M}$$

$$= 0,01578 \text{ g} = 15,8 \text{ mg}$$

Penimbangan ekstrak = 50 mg/50 ml = 1000 ppm

Penimbangan kuersetin = 25 mg/25 ml = 1000 ppm

Penimbangan krim pasaran = 50 mg/ 50 ml = 1000 ppm

Penimbangan F0 = 50 mg/ 50 ml = 1000 ppm

Penimbangan FI = 50 mg/50 ml = 1000 ppm

Penimbangan FII = 50 mg/50 ml = 1000 ppm

Penimbangan FIII = 50 mg/50 ml = 1000 ppm

SAMPEL	REPLIKASI	KONSENTRASI (PPM)	ABS SAMPEL	ABS DPPH
KUERSETIN	Replikasi 1	2	0,704	0,831
		4	0,616	
		6	0,460	
		8	0,343	
		10	0,262	
	Replikasi 2	2	0,632	0,831
		4	0,499	
		6	0,380	
		8	0,241	
		10	0,180	
	Replikasi 3	2	0,659	0,831
		4	0,542	
		6	0,431	
		8	0,267	
		10	0,188	
EKSTRAK	Replikasi 1	10	0,674	0,746
		25	0,587	
		40	0,463	
		55	0,380	
		70	0,293	
	Replikasi 2	10	0,630	0,763
		25	0,578	
		40	0,476	

		55	0,365	
		70	0,298	
	Replikasi 3	10	0,675	0,763
		25	0,562	
		40	0,449	
Lanjutan		55	0,398	
		70	0,290	
Krim pasaran	Replikasi 1	20	0,722	0,720
		40	0,705	
		60	0,696	
		80	0,655	
		100	0,623	
	Replikasi 2	20	0,720	0,720
		40	0,704	
		60	0,695	
		80	0,653	
		100	0,622	
	Replikasi 3	20	0,719	0,720
		40	0,703	
		60	0,694	
		80	0,651	
		100	0,622	
F0	Replikasi 1	20	0,696	0,743
		40	0,735	
		60	0,679	
		80	0,710	
		100	0,702	
	Replikasi 2	20	0,694	0,743
		40	0,734	
		60	0,678	
		80	0,708	
		100	0,700	
	Replikasi 3	20	0,692	0,743
		40	0,733	
		60	0,677	
		80	0,706	
		100	0,698	
FI	Replikasi 1	20	0,650	0,768
		40	0,619	
		60	0,580	
		80	0,540	
		100	0,480	
	Replikasi 2	20	0,648	0,768
		40	0,617	
		60	0,578	
		80	0,538	
		100	0,478	
	Replikasi 3	20	0,646	0,768
		40	0,615	
		60	0,576	

		80	0,536		
		100	0,476		
FII	Replikasi 1	20	0,698	0,768	
		40	0,646		
		60	0,590		
		80	0,503		
		100	0,450		
Replikasi 2	20	0,697	0,768		
	40	0,643			
Lanjutan		60	0,624		
		80	0,509		
	Replikasi 3	100	0,449	0,768	
		20	0,702		
		40	0,632		
		60	0,607		
		80	0,519		
		100	0,451		
	FIII	Replikasi 1	20	0,725	0,768
			40	0,631	
60			0,560		
80			0,497		
100			0,412		
Replikasi 2		20	0,721	0,768	
		40	0,636		
		60	0,562		
		80	0,489		
		100	0,419		
Replikasi 3		20	0,719	0,768	
		40	0,634		
		60	0,566		
		80	0,481		
		100	0,413		

PERHITUNGAN SERI PENGECERAN

$$V_1.C_1=V_2.C_2$$

a) Kuersetin

1. 2 ppm

$$V_1.C_1 = V_2.C_2$$

$$V_1.100 = 10. 2$$

$$V_1 = \frac{20}{100} = 0,2 \text{ ml}$$

2. 4 ppm

$$V_1.C_1 = V_2.C_2$$

$$V_1 \cdot 100 = 10 \cdot 4$$

$$V_1 = \frac{40}{100} = 0,4 \text{ ml}$$

3. 6 ppm

$$V_1 \cdot C_1 = V_2 \cdot C_2$$

$$V_1 \cdot 100 = 10 \cdot 6$$

$$V_1 = \frac{60}{100} = 0,6 \text{ ml}$$

4. 8 ppm

$$V_1 \cdot C_1 = V_2 \cdot C_2$$

$$V_1 \cdot 100 = 10 \cdot 8$$

$$V_1 = \frac{80}{100} = 0,8 \text{ ml}$$

5. 10 ppm

$$V_1 \cdot C_1 = V_2 \cdot C_2$$

$$V_1 \cdot 100 = 10 \cdot 10$$

$$V_1 = \frac{100}{100} = 1 \text{ ml}$$

b) Ekstrak

1. 10 ppm

$$V_1 \cdot C_1 = V_2 \cdot C_2$$

$$V_1 \cdot 1000 = 10 \cdot 10$$

$$V_1 = \frac{100}{1000} = 0,1 \text{ ml}$$

2. 25 ppm

$$V_1 \cdot C_1 = V_2 \cdot C_2$$

$$V_1 \cdot 100 = 10 \cdot 25$$

$$V_1 = \frac{250}{1000} = 0,25 \text{ ml}$$

3. 40 ppm

$$V_1 \cdot C_1 = V_2 \cdot C_2$$

$$V_1 \cdot 100 = 10 \cdot 40$$

$$V_1 = \frac{400}{1000} = 0,4 \text{ ml}$$

4. 55 ppm

$$V_1.C_1 = V_2.C_2$$

$$V_1.100 = 10. 55$$

$$V_1 = \frac{550}{1000} = 0,55 \text{ ml}$$

5. 70 ppm

$$V_1.C_1 = V_2.C_2$$

$$V_1.100 = 10. 70$$

$$V_1 = \frac{700}{1000} = 0,7 \text{ ml}$$

c) Krim pasaran, F0, F1, FII, dan FIII

1. 20 ppm

$$V_1.C_1 = V_2.C_2$$

$$V_1.1000 = 10. 20$$

$$V_1 = \frac{200}{1000} = 0,2 \text{ ml}$$

2. 40 ppm

$$V_1.C_1 = V_2.C_2$$

$$V_1.1000 = 10. 40$$

$$V_1 = \frac{400}{1000} = 0,4 \text{ ml}$$

3. 60 ppm

$$V_1.C_1 = V_2.C_2$$

$$V_1.1000 = 10. 60$$

$$V_1 = \frac{600}{1000} = 0,6 \text{ ml}$$

4. 80 ppm

$$V_1.C_1 = V_2.C_2$$

$$V_1.1000 = 10. 80$$

$$V_1 = \frac{800}{1000} = 0,8 \text{ ml}$$

5. 100 ppm

$$V_1.C_1 = V_2.C_2$$

$$V_1.1000 = 10.100$$

$$V_1 = \frac{1000}{1000} = 1 \text{ ml}$$

% INHIBISI

$$\% \text{ inhibisi} = \frac{\text{absorbansi blakon} - \text{absorbansi sampel}}{\text{absorbansi blanko}} \times 100\%$$

% INHIBISI KUERSETIN

a) Replikasi 1

$$1. \quad \% \text{ inhibisi} = \frac{0,831 - 0,704}{0,831} \times 100\%$$

$$\% \text{ inhibisi} = 15,2828\%$$

$$2. \quad \% \text{ inhibisi} = \frac{0,831 - 0,616}{0,831} \times 100\%$$

$$\% \text{ inhibisi} = 25,8724\%$$

$$3. \quad \% \text{ inhibisi} = \frac{0,831 - 0,460}{0,831} \times 100\%$$

$$\% \text{ inhibisi} = 44,6450\%$$

$$4. \quad \% \text{ inhibisi} = \frac{0,831 - 0,343}{0,831} \times 100\%$$

$$\% \text{ inhibisi} = 58,7244\%$$

$$5. \quad \% \text{ inhibisi} = \frac{0,831 - 0,262}{0,831} \times 100\%$$

$$\% \text{ inhibisi} = 68,4717\%$$

b) Replikasi 2

$$1. \quad \% \text{ inhibisi} = \frac{0,831 - 0,632}{0,831} \times 100\%$$

$$\% \text{ inhibisi} = 23,9471\%$$

$$2. \quad \% \text{ inhibisi} = \frac{0,831 - 0,499}{0,831} \times 100\%$$

$$\% \text{ inhibisi} = 39,9519\%$$

$$3. \quad \% \text{ inhibisi} = \frac{0,831 - 380}{0,831} \times 100\%$$

$$\% \text{ inhibisi} = 54,2720\%$$

$$4. \quad \% \text{ inhibisi} = \frac{0,831 - 0,241}{0,831} \times 100\%$$

$$\% \text{ inhibisi} = 70,9988\%$$

$$5. \ \% \text{ inhibisi} = \frac{0,831-0,180}{0,831} \times 100\%$$

$$\% \text{ inhibisi} = 78,3394\%$$

c) Replikasi 3

$$1. \ \% \text{ inhibisi} = \frac{0,831-659}{0,831} \times 100\%$$

$$\% \text{ inhibisi} = 20,6980\%$$

$$2. \ \% \text{ inhibisi} = \frac{0,831-0,542}{0,831} \times 100\%$$

$$\% \text{ inhibisi} = 34,7774\%$$

$$3. \ \% \text{ inhibisi} = \frac{0,831-0,431}{0,831} \times 100\%$$

$$\% \text{ inhibisi} = 48,1348\%$$

$$4. \ \% \text{ inhibisi} = \frac{0,831-0,267}{0,831} \times 100\%$$

$$\% \text{ inhibisi} = 67,8700\%$$

$$5. \ \% \text{ inhibisi} = \frac{0,831-0,188}{0,831} \times 100\%$$

$$\% \text{ inhibisi} = 77,3767\%$$

% INHIBISI EKSTRAK

a) Replikasi 1

$$1. \ \% \text{ inhibisi} = \frac{0,746-0,674}{0,746} \times 100\%$$

$$\% \text{ inhibisi} = 9,6515\%$$

$$2. \ \% \text{ inhibisi} = \frac{0,746-0,587}{0,746} \times 100\%$$

$$\% \text{ inhibisi} = 21,3137\%$$

$$3. \ \% \text{ inhibisi} = \frac{0,746-0,463}{0,746} \times 100\%$$

$$\% \text{ inhibisi} = 37,9357\%$$

$$4. \ \% \text{ inhibisi} = \frac{0,746-0,380}{0,746} \times 100\%$$

$$\% \text{ inhibisi} = 49,0617\%$$

$$5. \ \% \text{ inhibisi} = \frac{0,746-0,293}{0,746} \times 100\%$$

$$\% \text{ inhibisi} = 60,7239\%$$

b) Replikasi 2

$$1. \ \% \text{ inhibisi} = \frac{0,763-0,630}{0,763} \times 100\%$$

$$\% \text{ inhibisi} = 17,4312\%$$

$$2. \ \% \text{ inhibisi} = \frac{0,763-0,578}{0,763} \times 100\%$$

$$\% \text{ inhibisi} = 24,2464\%$$

$$3. \ \% \text{ inhibisi} = \frac{0,763-0,476}{0,763} \times 100\%$$

$$\% \text{ inhibisi} = 37,6147\%$$

$$4. \ \% \text{ inhibisi} = \frac{0,763-0,365}{0,763} \times 100\%$$

$$\% \text{ inhibisi} = 52,1625\%$$

$$5. \ \% \text{ inhibisi} = \frac{0,763-0,298}{0,763} \times 100\%$$

$$\% \text{ inhibisi} = 60,9436\%$$

c) Replikasi 3

$$1. \ \% \text{ inhibisi} = \frac{0,763-0,675}{0,763} \times 100\%$$

$$\% \text{ inhibisi} = 11,5334\%$$

$$2. \ \% \text{ inhibisi} = \frac{0,763-0,562}{0,763} \times 100\%$$

$$\% \text{ inhibisi} = 26,3434\%$$

$$3. \ \% \text{ inhibisi} = \frac{0,763-0,449}{0,763} \times 100\%$$

$$\% \text{ inhibisi} = 41,1533\%$$

$$4. \ \% \text{ inhibisi} = \frac{0,763-0,398}{0,763} \times 100\%$$

$$\% \text{ inhibisi} = 47,8375\%$$

$$5. \ \% \text{ inhibisi} = \frac{0,763-0,290}{0,763} \times 100\%$$

$$\% \text{ inhibisi} = 61,9921\%$$

% INHIBISI KRIM PASARAN

a) Replikasi 1

$$1. \% \text{ inhibisi} = \frac{0,720-0,722}{0,720} \times 100\%$$

$$\% \text{ inhibisi} = -0,2778\%$$

$$2. \% \text{ inhibisi} = \frac{0,720-0,705}{0,720} \times 100\%$$

$$\% \text{ inhibisi} = 2,0833\%$$

$$3. \% \text{ inhibisi} = \frac{0,720-0,696}{0,720} \times 100\%$$

$$\% \text{ inhibisi} = 3,3333\%$$

$$4. \% \text{ inhibisi} = \frac{0,720-0,655}{0,720} \times 100\%$$

$$\% \text{ inhibisi} = 9,0278\%$$

$$5. \% \text{ inhibisi} = \frac{0,720-0,623}{0,720} \times 100\%$$

$$\% \text{ inhibisi} = 13,4722\%$$

b) Replikasi 2

$$1. \% \text{ inhibisi} = \frac{0,720-0,720}{0,720} \times 100\%$$

$$\% \text{ inhibisi} = 0,0000\%$$

$$2. \% \text{ inhibisi} = \frac{0,720-0,704}{0,720} \times 100\%$$

$$\% \text{ inhibisi} = 2,2222\%$$

$$3. \% \text{ inhibisi} = \frac{0,720-0,695}{0,720} \times 100\%$$

$$\% \text{ inhibisi} = 3,4722\%$$

$$4. \% \text{ inhibisi} = \frac{0,720-0,653}{0,720} \times 100\%$$

$$\% \text{ inhibisi} = 9,3056\%$$

$$5. \% \text{ inhibisi} = \frac{0,720-0,622}{0,720} \times 100\%$$

$$\% \text{ inhibisi} = 13,6111\%$$

c) Replikasi 3

$$1. \% \text{ inhibisi} = \frac{0,720-0,719}{0,720} \times 100\%$$

$$\% \text{ inhibisi} = 0,1389\%$$

$$2. \text{ \% inhibisi} = \frac{0,720-0,703}{0,720} \times 100\%$$

$$\text{\% inhibisi} = 2,3611\%$$

$$3. \text{ \% inhibisi} = \frac{0,720-0,694}{0,720} \times 100\%$$

$$\text{\% inhibisi} = 3,6111\%$$

$$4. \text{ \% inhibisi} = \frac{0,720-0,651}{0,720} \times 100\%$$

$$\text{\% inhibisi} = 9,5833\%$$

$$5. \text{ \% inhibisi} = \frac{0,720-0,622}{0,720} \times 100\%$$

$$\text{\% inhibisi} = 13,6111\%$$

% INHIBISI F0

a) Replikasi 1

$$1. \text{ \% inhibisi} = \frac{0,743-0,696}{0,743} \times 100\%$$

$$\text{\% inhibisi} = 6,3257\%$$

$$2. \text{ \% inhibisi} = \frac{0,743-0,735}{0,743} \times 100\%$$

$$\text{\% inhibisi} = 1,0767\%$$

$$3. \text{ \% inhibisi} = \frac{0,743-0,679}{0,743} \times 100\%$$

$$\text{\% inhibisi} = 8,6137\%$$

$$4. \text{ \% inhibisi} = \frac{0,743-0,710}{0,743} \times 100\%$$

$$\text{\% inhibisi} = 4,4415\%$$

$$5. \text{ \% inhibisi} = \frac{0,743-0,702}{0,743} \times 100\%$$

$$\text{\% inhibisi} = 5,5182\%$$

b) Replikasi 2

$$1. \text{ \% inhibisi} = \frac{0,743-0,694}{0,743} \times 100\%$$

$$\text{\% inhibisi} = 6,5949\%$$

$$2. \text{ \% inhibisi} = \frac{0,743-0,734}{0,743} \times 100\%$$

$$\text{\% inhibisi} = 1,2113\%$$

$$3. \text{ \% inhibisi} = \frac{0,743-0,678}{0,743} \times 100\%$$

$$\text{\% inhibisi} = 8,7483\%$$

$$4. \text{ \% inhibisi} = \frac{0,743-0,708}{0,743} \times 100\%$$

$$\text{\% inhibisi} = 4,7106\%$$

$$5. \text{ \% inhibisi} = \frac{0,743-0,700}{0,743} \times 100\%$$

$$\text{\% inhibisi} = 5,7873\%$$

c) Replikasi 3

$$1. \text{ \% inhibisi} = \frac{0,743-0,692}{0,743} \times 100\%$$

$$\text{\% inhibisi} = 6,8641\%$$

$$2. \text{ \% inhibisi} = \frac{0,743-0,733}{0,743} \times 100\%$$

$$\text{\% inhibisi} = 1,3459\%$$

$$3. \text{ \% inhibisi} = \frac{0,743-0,677}{0,743} \times 100\%$$

$$\text{\% inhibisi} = 8,8829\%$$

$$4. \text{ \% inhibisi} = \frac{0,743-0,706}{0,743} \times 100\%$$

$$\text{\% inhibisi} = 4,9798\%$$

$$5. \text{ \% inhibisi} = \frac{0,743-0,698}{0,743} \times 100\%$$

$$\text{\% inhibisi} = 6,0565\%$$

% INHIBISI FI

a) Replikasi 1

$$1. \text{ \% inhibisi} = \frac{0,768-0,650}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 15,3646\%$$

$$2. \text{ \% inhibisi} = \frac{0,768-0,619}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 19,4010\%$$

$$3. \text{ \% inhibisi} = \frac{0,768-0,580}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 24,4792\%$$

$$4. \text{ \% inhibisi} = \frac{0,768-0,540}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 29,6875\%$$

$$5. \text{ \% inhibisi} = \frac{0,768-0,480}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 37,5000\%$$

b) Replikasi 2

$$1. \text{ \% inhibisi} = \frac{0,768-0,648}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 15,6250\%$$

$$2. \text{ \% inhibisi} = \frac{0,768-0,617}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 19,6615\%$$

$$3. \text{ \% inhibisi} = \frac{0,768-0,578}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 24,7396\%$$

$$4. \text{ \% inhibisi} = \frac{0,768-0,538}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 29,9479\%$$

$$5. \text{ \% inhibisi} = \frac{0,768-0,478}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 37,7604\%$$

c) Replikasi 3

$$1. \text{ \% inhibisi} = \frac{0,768-0,646}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 15,8854\%$$

$$2. \text{ \% inhibisi} = \frac{0,768-0,615}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 19,9219\%$$

$$3. \text{ \% inhibisi} = \frac{0,768-0,576}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 25,0000\%$$

$$4. \text{ \% inhibisi} = \frac{0,768-0,536}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 30,2083\%$$

$$5. \text{ \% inhibisi} = \frac{0,768-0,476}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 38,0208\%$$

% INHIBISI FII

a) Replikasi 1

$$1. \text{ \% inhibisi} = \frac{0,768-0,698}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 9,1146\%$$

$$2. \text{ \% inhibisi} = \frac{0,768-0,646}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 15,8854\%$$

$$3. \text{ \% inhibisi} = \frac{0,768-0,590}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 23,1771\%$$

$$4. \text{ \% inhibisi} = \frac{0,768-0,503}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 34,5052\%$$

$$5. \text{ \% inhibisi} = \frac{0,768-0,450}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 41,4063\%$$

b) Replikasi 2

$$1. \text{ \% inhibisi} = \frac{0,768-0,697}{0,768} \times 100\%$$

$$\% \text{ inhibisi} = 9,24488\%$$

$$2. \ \% \text{ inhibisi} = \frac{0,768-0,643}{0,768} \times 100\%$$

$$\% \text{ inhibisi} = 16,2760\%$$

$$3. \ \% \text{ inhibisi} = \frac{0,768-0,624}{0,768} \times 100\%$$

$$\% \text{ inhibisi} = 18,7500\%$$

$$4. \ \% \text{ inhibisi} = \frac{0,768-0,509}{0,768} \times 100\%$$

$$\% \text{ inhibisi} = 33,7240\%$$

$$5. \ \% \text{ inhibisi} = \frac{0,768-0,449}{0,768} \times 100\%$$

$$\% \text{ inhibisi} = 41,5365\%$$

c) Replikasi 3

$$1. \ \% \text{ inhibisi} = \frac{0,768-0,702}{0,768} \times 100\%$$

$$\% \text{ inhibisi} = 8,5938\%$$

$$2. \ \% \text{ inhibisi} = \frac{0,768-0,632}{0,768} \times 100\%$$

$$\% \text{ inhibisi} = 17,7083\%$$

$$3. \ \% \text{ inhibisi} = \frac{0,768-0,607}{0,768} \times 100\%$$

$$\% \text{ inhibisi} = 20,9635\%$$

$$4. \ \% \text{ inhibisi} = \frac{0,768-0,519}{0,768} \times 100\%$$

$$\% \text{ inhibisi} = 32,4219\%$$

$$5. \ \% \text{ inhibisi} = \frac{0,768-0,451}{0,768} \times 100\%$$

$$\% \text{ inhibisi} = 41,2760\%$$

% INHIBISI FIII

a) Replikasi 1

$$1. \text{ \% inhibisi} = \frac{0,768-0,725}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 5,5990\%$$

$$2. \text{ \% inhibisi} = \frac{0,768-0,631}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 17,8385\%$$

$$3. \text{ \% inhibisi} = \frac{0,768-0,560}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 27,0833\%$$

$$4. \text{ \% inhibisi} = \frac{0,768-0,497}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 35,2865\%$$

$$5. \text{ \% inhibisi} = \frac{0,768-0,412}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 46,3542\%$$

b) Replikasi 2

$$1. \text{ \% inhibisi} = \frac{0,768-0,721}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 6,1198\%$$

$$2. \text{ \% inhibisi} = \frac{0,768-0,636}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 17,1875\%$$

$$3. \text{ \% inhibisi} = \frac{0,768-0,562}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 26,822\%$$

$$4. \text{ \% inhibisi} = \frac{0,768-0,489}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 36,3281\%$$

$$5. \text{ \% inhibisi} = \frac{0,768-0,419}{0,768} \times 100\%$$

$$\text{\% inhibisi} = 45,4427$$

c) Replikasi 3

$$1. \quad \% \text{ inhibisi} = \frac{0,768-0,719}{0,768} \times 100\%$$

$$\% \text{ inhibisi} = 6,3802\%$$

$$2. \quad \% \text{ inhibisi} = \frac{0,768-0,634}{0,768} \times 100\%$$

$$\% \text{ inhibisi} = 17,4479\%$$

$$3. \quad \% \text{ inhibisi} = \frac{0,768-0,566}{0,768} \times 100\%$$

$$\% \text{ inhibisi} = 26,3021\%$$

$$4. \quad \% \text{ inhibisi} = \frac{0,768-0,481}{0,768} \times 100\%$$

$$\% \text{ inhibisi} = 37,3698\%$$

$$5. \quad \% \text{ inhibisi} = \frac{0,768-0,413}{0,768} \times 100\%$$

$$\% \text{ inhibisi} = 46,2240\%$$

Sampel	Replikasi	Hasil regresi linier	IC ₅₀ (ppm)	Rata-rata
Kuersetin	Replikasi 1	a = 0,8303 b = 6,9615 r = 0,9946	7,06	6,20
	Replikasi 2	a = 11,5523 b = 6,9916 r = 0,9936	5,50	
	Replikasi 3	a = 5,8363 b = 7,3225 r = 0,9959	6,03	
Ekstrak	Replikasi 1	a = 1,0992 b = 0,8660 r = 0,9976	56,47	55,50
	Replikasi 2	a = 7,8287 b = 0,7663 r = 0,9936	55,03	
	Replikasi 3	a = 5,1289 b = 0,8161 r = 0,9934	54,98	
Krim Pasaran	Replikasi 1	a = -4,806 b = 0,1722 r = 0,9713	318,23	318,25
	Replikasi 2	a = -4,569 b = 0,1715 r = 0,9698	318,14	
	Replikasi 3	a = -4,389 b = 0,1708 r = 0,9704	318,37	
F0	Replikasi 1	a = 4,6703 b = 0,0087 r = 0,1000	5181,54	4810,13
	Replikasi 2	a = 4,8452 b = 0,0094 r = 0,1073	4792,86	
	Replikasi 3	a = 5,0202 b = 0,0101 r = 0,1145	4456,00	
FI	Replikasi 1	a = 8,9193 b = 0,2728 r = 0,9923	150,60	149,64
	Replikasi 2	a = 9,1797 b = 0,2728 r = 0,9923	149,64	
	Replikasi 3	a = 9,4401 b = 0,2728 r = 0,9923	148,69	

Lanjutan

FII	Replikasi 1	a = -0,1432	120,53	122,87
		b = 0,4160		
		r = 0,9958		
	Replikasi 2	a = -0,7031	123,62	
		b = 0,4102		
		r = 0,9756		
	Replikasi 3	a = 0,1693	124,46	
		b = 0,4004		
		r = 0,9892		
FIII	Replikasi 1	a = -3,2552	107,63	107,54
		b = 0,4948		
		r = 0,9978		
	Replikasi 2	a = -2,9557	108,31	
		b = 0,4889		
		r = 0,9993		
	Replikasi 3	a = -3,1380	106,69	
		b = 0,4980		
		r = 0,9993		

PERHITUNGAN IC₅₀

$$Y = a+bx$$

x = nilai IC₅₀

A. KUERSETIN

1. Replikasi 1

$$Y = a+bx$$

$$50 = 0,8303 + 6,9615x$$

$$X = \frac{50-0,8303}{6,9615}$$

$$X = 7,06 \text{ ppm}$$

2. Replikasi 2

$$Y = a+bx$$

$$50 = 11,5523 + 6,9615x$$

$$X = \frac{50-11,5523}{6,9615}$$

$$X = 5,50 \text{ ppm}$$

3. Replikasi 3

$$Y = a+bx$$

$$50 = 5,8363 + 2,9112x$$

$$X = \frac{50-5,8363}{7,3225}$$

$$X = 6,03 \text{ ppm}$$

B. EKSTRAK

1. Replikasi 1

$$Y = a+bx$$

$$50 = 1,0992 + 0,8660x$$

$$X = \frac{50-1,0992}{0,8660}$$

$$X = 56,47 \text{ ppm}$$

2. Replikasi 2

$$Y = a+bx$$

$$50 = 7,8287 + 0,7663x$$

$$X = \frac{50-7,8287}{0,7663}$$

$$X = 55,03 \text{ ppm}$$

3. Replikasi 3

$$Y = a+bx$$

$$50 = 5,1289 + 0,8161x$$

$$X = \frac{50-5,1289}{0,8161}$$

$$X = 54,98 \text{ ppm}$$

C. KRIM PASARAN

1. Replikasi 1

$$Y = a+bx$$

$$50 = -4,806 + 0,1722x$$

$$X = \frac{50-(-4,806)}{0,1722}$$

$$X = 318,23 \text{ ppm}$$

2. Replikasi 2

$$Y = a+bx$$

$$50 = -4,569 + 0,1715x$$

$$X = \frac{50-(-4,569)}{0,1715}$$

$$X = 318,14 \text{ ppm}$$

3. Replikasi 3

$$Y = a+bx$$

$$50 = -4,389 + 0,1708x$$

$$X = \frac{50 - (-4,389)}{0,1708}$$

$$X = 318,37 \text{ ppm}$$

D. F0

1. Replikasi 1

$$Y = a+bx$$

$$50 = 4,6703 + 0,0087x$$

$$X = \frac{50 - 4,6703}{0,0087}$$

$$X = 5181,54 \text{ ppm}$$

2. Replikasi 2

$$Y = a+bx$$

$$50 = 4,8452 + 0,0094x$$

$$X = \frac{50 - 4,8452}{0,0094}$$

$$X = 4792,86 \text{ ppm}$$

3. Replikasi 3

$$Y = a+bx$$

$$50 = 5,0202 + 0,0101x$$

$$X = \frac{50 - 5,0202}{0,0101}$$

$$X = 4456,00 \text{ ppm}$$

E. F1

1. Replikasi 1

$$Y = a+bx$$

$$50 = 8,9193 + 0,2728x$$

$$X = \frac{50 - 8,9193}{0,2728}$$

$$X = 150,60 \text{ ppm}$$

2. Replikasi 2

$$Y = a+bx$$

$$50 = 9,1797 + 0,2728x$$

$$X = \frac{50 - 9,1797}{0,2728}$$

$$X = 149,64 \text{ ppm}$$

3. Replikasi 3

$$Y = a + bx$$

$$50 = 9,4401 + 0,2728x$$

$$X = \frac{50 - 9,4401}{0,2728}$$

$$X = 148,69 \text{ ppm}$$

F. FII

1. Replikasi 1

$$Y = a + bx$$

$$50 = -0,1432 + 0,4160x$$

$$X = \frac{50 - (-0,1432)}{0,4160}$$

$$X = 120,53 \text{ ppm}$$

2. Replikasi 2

$$Y = a + bx$$

$$50 = -0,7031 + 0,4102x$$

$$X = \frac{50 - (-0,7031)}{0,4102}$$

$$X = 123,62 \text{ ppm}$$

3. Replikasi 3

$$Y = a + bx$$

$$50 = 0,1693 + 0,4004x$$

$$X = \frac{50 - 0,1693}{0,4004}$$

$$X = 124,46 \text{ ppm}$$

G. FIII

1. Replikasi 1

$$Y = a + bx$$

$$50 = -3,2552 + 0,4948x$$

$$X = \frac{50 - (-3,2552)}{0,4948}$$

$$X = 107,63 \text{ ppm}$$

2. Replikasi 2

$$Y = a + bx$$

$$50 = -2,9557 + 0,4889x$$

$$X = \frac{50 - (-2,9557)}{0,4889}$$

$$X = 108,31 \text{ ppm}$$

3. Replikasi 3

$$Y = a + bx$$

$$50 = -3,1380 + 0,4980x$$

$$X = \frac{50 - (-3,1380)}{0,4980}$$

$$X = 106,69 \text{ ppm}$$

Tests of Normality

	Kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
IC50	Kuersetin	.250	3	.	.967	3	.651
	Ekstrak	.375	3	.	.775	3	.056
	Krim Pasaran	.224	3	.	.984	3	.762
	F0	.186	3	.	.998	3	.921
	F1	.175	3	.	1.000	3	.994
	FII	.308	3	.	.902	3	.390
	FIII	.209	3	.	.991	3	.824

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
IC50	Based on Mean	4.588	6	14	.009
	Based on Median	3.920	6	14	.017
	Based on Median and with adjusted df	3.920	6	2.000	.217
	Based on trimmed mean	4.549	6	14	.009

ANOVA

IC50

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	56575521.336	6	9429253.556	500.669	.000

Within Groups	263666.129	14	18833.295
Total	56839187.465	20	

Multiple Comparisons

Dependent Variable: IC50

Dunnett T3

(I) Kelompok	(J) Kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Kuersetin	Ekstrak	-49.29667*	.66964	.000	-52.9546	-45.6387
	Krim	-312.05000*	.46284	.000	-316.3874	-307.7126
	Pasaran					

Lanjutan

	F0	- 209.62385	.009	-	-	
		4803.93667*		6867.9695	2739.9038	
	FI	-143.44667*	.71677	.000	-147.4296	-139.4637
	FII	-116.67333*	1.27963	.000	-126.3149	-107.0317
	FIII	-101.34667*	.65599	.000	-104.9227	-97.7707
Ekstrak	Kuersetin	49.29667*	.66964	.000	45.6387	52.9546
	Krim	-262.75333*	.49311	.000	-267.4011	-258.1056
	Pasaran					
	F0	- 209.62392	.010	-	-	
	4754.64000*		6818.6702	2690.6098		
	FI	-94.15000*	.73667	.000	-98.1983	-90.1017
	FII	-67.37667*	1.29088	.000	-76.8523	-57.9010
	FIII	-52.05000*	.67768	.000	-55.7462	-48.3538
Krim	Kuersetin	312.05000*	.46284	.000	307.7126	316.3874
Pasaran	Ekstrak	262.75333*	.49311	.000	258.1056	267.4011
	F0	- 209.62336	.011	-	-	
		4491.88667*		6555.9381	2427.8353	
	FI	168.60333*	.55542	.000	163.3204	173.8862
	FII	195.37667*	1.19674	.000	183.6816	207.0717
	FIII	210.70333*	.47440	.000	206.2473	215.1594
F0	Kuersetin	4803.93667*	209.62385	.009	2739.9038	6867.9695

	Ekstrak	4754.64000*	209.62392	.010	2690.6098	6818.6702
	Krim	4491.88667*	209.62336	.011	2427.8353	6555.9381
	Pasaran					
	FI	4660.49000*	209.62408	.010	2596.4657	6724.5143
	FII	4687.26333*	209.62676	.010	2623.3404	6751.1862
	FIII	4702.59000*	209.62388	.010	2638.5581	6766.6219
FI	Kuersetin	143.44667*	.71677	.000	139.4637	147.4296
	Ekstrak	94.15000*	.73667	.000	90.1017	98.1983
	Krim	-168.60333*	.55542	.000	-173.8862	-163.3204
	Pasaran					
	F0	-	209.62408	.010	-	-
		4660.49000*			6724.5143	2596.4657
	FII	26.77333*	1.31594	.003	17.6030	35.9437
	FIII	42.10000*	.72429	.000	38.0948	46.1052
FII	Kuersetin	116.67333*	1.27963	.000	107.0317	126.3149
	Ekstrak	67.37667*	1.29088	.000	57.9010	76.8523
	Krim	-195.37667*	1.19674	.000	-207.0717	-183.6816
	Pasaran					
	F0	-	209.62676	.010	-	-
		4687.26333*			6751.1862	2623.3404
	FI	-26.77333*	1.31594	.003	-35.9437	-17.6030
	FIII	15.32667*	1.28385	.015	5.7497	24.9036
FIII	Kuersetin	101.34667*	.65599	.000	97.7707	104.9227
	Ekstrak	52.05000*	.67768	.000	48.3538	55.7462

Lanjutan

Krim Pasaran	-210.70333*	.47440	.000	-215.1594	-206.2473
F0	-4702.59000*	209.62388	.010	-6766.6219	-2638.5581
FI	-42.10000*	.72429	.000	-46.1052	-38.0948
FII	-15.32667*	1.28385	.015	-24.9036	-5.7497

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