LAMPIRAN

Lampiran 1. ROA Minyak Biji Labu Kuning dan Hasil Determinasi

PT. SARASWANTI INDO GENETECH
ONE STOP LABORATORY SERVICES

KAN Komite Akreditasi Nasional Laboratorium Penguji LP-184-IDN

Main Office and Laboratory: Graha SIG Jl Rasamala No.20 Taman Yasmin Bogor 16113 INDONESIA
Jakarta Branch: Jl. Percetakan Negara No. 52 B RT 006/ RW 001 Kel. Rawasari, Kec. Cempaka Putih, Jakarta INDONESIA
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www.siglaboratory.com

No : SIG.CL.VII.2020.022619
Lamp : 1 Halaman
Perihal : Laporan Hasil Uji Laboratorium

Bogor, 20 Juli 2020

Kepada Yth.
PT. Tamba Sanjiwani
Jl. Meliling Km 1 Br. Dinas Meliling Kawan, Meliling, Kerambitan Kab. Tabanan - Bali

Dengan hormat,
Berdasarkan surat order marketing nomor : SIG.Mark.OTK.VII.2020.003604 ,maka bersama ini kami sampaikan hasil uji analisis laboratorium .
Demikian surat ini kami sampaikan semoga dapat dipergunakan sebagaimana mestinya.
Atas kerjasamanya yang baik kami mengucapkan terima kasih.

Hormat kami,
PT. Saraswanti Indo Genetech

P.T. SARASWANTI INDO GENETECH INDONESIA BOGOR

Robertus B.Aryo
Manager Marketing

PT. SARASWANTI INDO GENETECH
ONE STOP LABORATORY SERVICES

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No. 28/F-PP/SMM-SIG
Revisi : 3

RESULT OF ANALYSIS

Laporan Hasil Pengujian
SIG.LHP.VII.2020.070583

I.	**Number / Nomor**	
	1.1. Order No. / No. Order	: SIG.Mark.OTK.VII.2020.003604
II.	**Principal / Pelanggan**	
	2.1. Name / Nama	: PT. Tamba Sanjiwani
	2.2. Address / Alamat	: Jl. Meliling Km 1 Br. Dinas Meliling Kawan, Meliling, Kerambitan Kab. Tabanan - Bali
	2.3. Phone / Telepon	: 0361-8944047
	2.4. Contact Person / Personil Penghubung	: Trie
III.	**Sample / Contoh Uji**	
	3.1. Sample Code / Kode Sampel	: -
	3.2. Batch Number / No Batch	: -
	3.3. Lot Number / No Lot	: -
	3.4. Packaging / Kemasan	: -
	3.5. Production Date / Tanggal Produksi	: -
	3.6. Expire Date / Tanggal Kadaluarsa	: -
	3.7. Factory Name / Nama Pabrik	: -
	3.8. Factory Address / Alamat Pabrik	: -
	3.9. Trade Mark / Nama Dagang	: -
	3.10. Sample Name / Nama Sample	: Minyak Biji Labu (Pumpkin Seed Oil)

Result of analysis on page I

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No. 28/F-PP/SMM-SIG
Revisi : 3

RESULT OF ANALYSIS

Laporan Hasil Pengujian
No : SIG.LHP.VII.2020.070583

3. 11 Other Information / Keterangan lain	: -
3.11.1. No Notifikasi	: -
3.11.2. No Pengajuan	: -
3.11.3. No Registrasi	: -
3.11.4. No Principal Code	: -
3.12. Date of Received / Diterima	: July 07, 2020
3.13. Date of Analysis/ Tanggal Uji	: July 08, 2020 - July 17, 2020
3.14. Type of Analysis/ Jenis Uji	: Terlampir

IV. Result / Hasil Uji

Next page 3 / Halaman selanjutnya 3

Result of analysis on page II

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No. 28/F-PP/SMM-SIG
Revisi : 3

Result of Analysis
No : SIG.LHP.VII.2020.070583

No.	Parameter	Unit	Result	Limit Of Detection	Method
1	Lemak jenuh	%	17.73	-	18-6-1/MU/SMM-SIG (GC)
2	Natrium	mg / 100 g	8.60	-	18-13-1/MU/SMM-SIG (ICP OES)
3	Pb	mg / kg	Not detected	0.006	18-13-1/MU/SMM-SIG (ICP OES)
4	Sn	mg / kg	Not detected	0.2	18-13-1/MU/SMM-SIG (ICP OES)
5	As	mg / kg	Not detected	0.008	18-13-1/MU/SMM-SIG (ICP OES)
6	Cd	mg / kg	Not detected	0.00011	18-13-1/MU/SMM-SIG (ICP OES)
7	Hg	mg / kg	Not detected	0.004	18-13-1/MU/SMM-SIG (ICP OES)
8	Kadar Air (Karl Fischer)	%	0.06	-	18-11-44/MU/SMM-SIG
9	Karbohidrat	%	0	-	18-8-9 /MU/SMM-SIG
10	Protein	%	<0.04	-	18-8-31/MU/SMM - SIG (Kjeltec)

Result of analysis on page III

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No. 28/F-PP/SMM-SIG
Revisi : 3

Result of Analysis
No : SIG.LHP.VII.2020.070583

No.	Parameter	Unit	Result	Limit Of Detection	Method
11	Lemak Total	%	99.94	-	18-8-19/MU/SMM-SIG
12	Energi Total	Kcal/100 g	899.46	-	Calculation
13	Asam Lemak Bebas	%	0.40	-	18-11-17/MU/SMM-SIG (Titrimetry)
14	Gula	%	Not detected	0.28	18-8-8/MU/SMM-SIG (Luff-Schoorl)

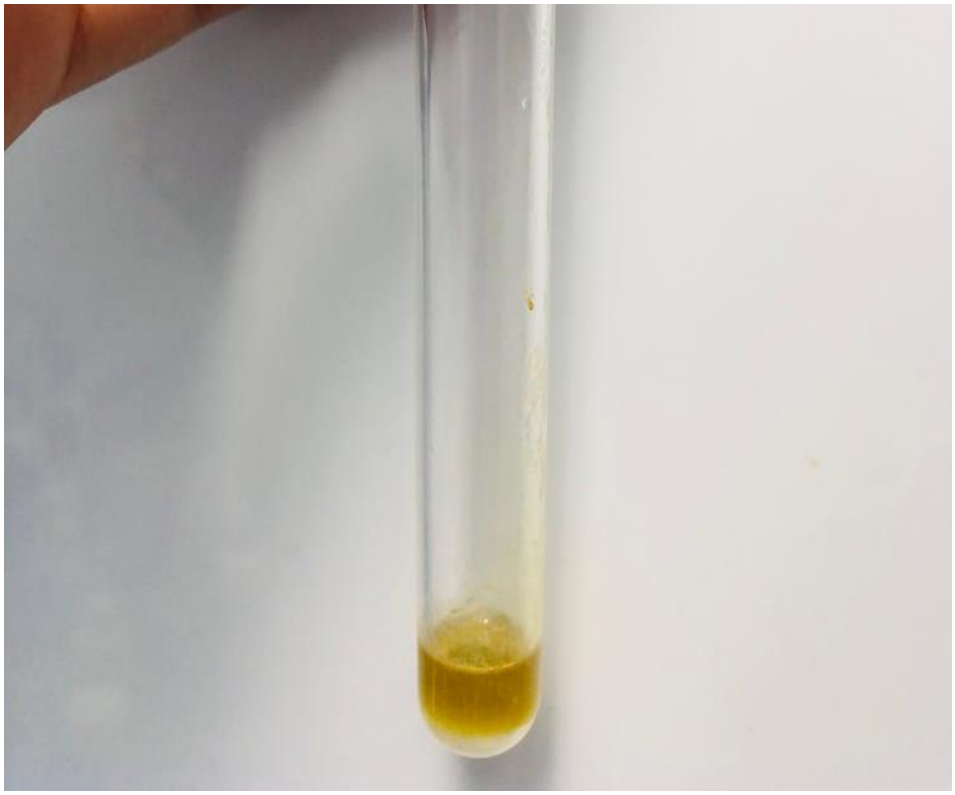
Bogor, 20 Juli 2020
PT. Saraswanti Indo Genetech

PT. SARASWANTI INDO GENETECH INDONESIA BOGOR

Dwi Yulianto Laksono, S.Si
Manager Laboratorium

Result of analysis on page IV

Lampiran 2. Hasil Uji Skrining Fitokimia Flavonoid



Lampiran 3. Sediaan Nanoemulgel Minyak Biji Labu Kuning

Formula 1

Formula 2


Lampiran 4. Hasil pH sebelum *Cycling test*

Replikasi	Formulasi 1	Formulasi 2	Standar
Replikasi 1	6,71	6,22	4,5-7
Replikasi 2	5,58	6,15	4,5-7
Replikasi 3	6,22	6,08	4,5-7
Rata-rata ± SD	**6,17 ± 0,567**	**6,15 ± 0,075**	**4,5-7**

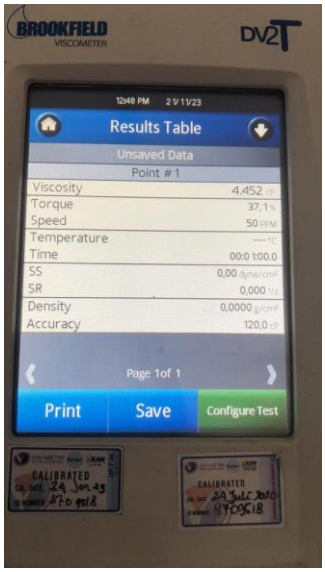
Parameter	Hasil	
pH		
Replikasi	**Formulasi 1**	**Formulasi 2**
Replikasi 1		
Replikasi 2		

Replikasi 3		

Lampiran 5. Hasil Viskositas sediaan Nanoemulgel Sebelum *Cycling test*

Replikasi	Viskositas (cP)		Standar (cP)	Keterangan
	F 1	F2		
Replikasi 1	4608	8124	500-10000	Memenuhi syarat
Replikasi 2	4596	9012	500-10000	Memenuhi syarat
Replikasi 3	4452	9612	500-10000	Memenuhi syarat
Rata-rata ± SD	**4.552 ± 86,810**	**8.916 ± 748,630**	500-10000	**Memenuhi syarat**

Replikasi	Formulasi 1	Formulasi 2
Replikasi 1		
Replikasi 2		

Replikasi 3	 BROOKFIELD VISCOMETER DV2T 12:48 PM 2/11/23 Results Table Unsaved Data Point # 1 Viscosity 4,452 Torque 37,1 Speed 50 RPM Temperature Time 00:0 1:00.0 SS 0,00 SR 0,000 Density 0,0000 Accuracy 120,0 Page 1of 1 Print Save Configure Test CALIBRATED CALIBRATED	 VISCOMETER DV2 10:47 AM 22/11/23 Results Table Unsaved Data Point # 1 Viscosity 9.6 12 Torque 80,1 Speed 50 RPM Temperature Time 00:0 1:00.0 SS 0,00 SR 0,000 Density 0,0000 Accuracy 120,0 Page 1of 1 Print Save Configure Test

Lampiran 6. Hasil Uji Homogenitas Sebelum *Cycling test*

Replikasi	Formula 1	Formula 2
1	Homogen	Homogen
2	Homogen	Homogen
3	homogen	homogen

Replikasi	Formulasi 1	Formulasi 2
Replikasi 1		
Replikasi 2		
Replikasi 3		

Lampiran 7. Hasil Uji Ukuran Partikel (PSA) Nanoemulsi MBLK

Size Distribution Report by Intensity

v2.2

Malvern

Sample Details

Sample Name:	NanoEmulMBLK 1
SOP Name:	mansettings.nano
General Notes:	

File Name:	Nano emulsi.dts	**Dispersant Name:**	Water
Record Number:	5	**Dispersant RI:**	1.330
Material RI:	1.50	**Viscosity (cP):**	0.8872
Material Absorbtion:	0.001	**Measurement Date and Time:**	Thursday, November 9, 2023 ...

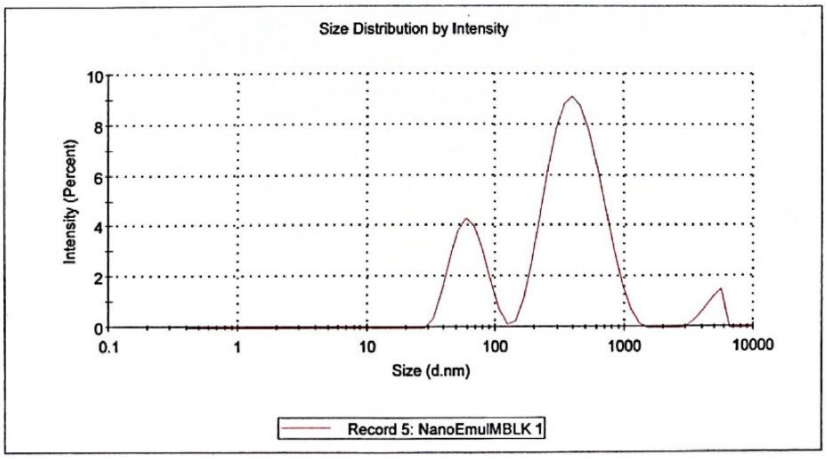
System

Temperature (°C):	25.0	**Duration Used (s):**	60
Count Rate (kcps):	270.6	**Measurement Position (mm):**	4.65
Cell Description:	Glass cuvette with round apert...	**Attenuator:**	9

Results

			Size (d.nm):	% Intensity:	St Dev (d.n...
Z-Average (d.nm):	181.8	**Peak 1:**	444.2	73.6	200.1
PdI:	0.610	**Peak 2:**	62.87	22.3	17.78
Intercept:	0.886	**Peak 3:**	4786	4.0	732.5

Result quality : Refer to quality report



Malvern Instruments Ltd
www.malvern.com

Zetasizer Ver. 7.12
Serial Number : MAL1186431

File name: Nano em
Record Number: 5
09 Nov 2023 1:46:3

Lampiran 8. Hasil Uji Sineresis Nanoemulgel MBLK

Sampel	24 jam	48 jam	72 jam
F1R1	0,4%	0,5%	0,7%
F1R2	0,3%	0,7%	0,8%
F1R3	0,4%	0,8%	1%
Rata-rata ± SD	0,37 ± 0,00057%	0,67 ± 0,001 %	0,83 ± 0,001 %
F2R1	0,8%	1%	1,3%
F2R2	0,7%	1,2%	1,4%
F2R3	0,8%	1,4%	1,5%
Rata-rata ± SD	0,77 ± 0,0005%	1,10 ± 0,0026 %	1,40 ± 0,001%

Replikasi	Formulasi 1	Formulasi 2
Replikasi 1		

Replikasi 2		
Replikasi 3		

Lampiran 9. Hasil Uji Sentrifugasi Nanoemulgel MBLK

Replikasi	Formulasi 1	Formulasi 2
Replikasi 1		
Replikasi 2		
Replikasi 3		

Lampiran 10. Hasil Uji Daya Sebar Nanoemulgel MBLK

Formula 1

Beban (g)	Daya Sebar Nanoemulgel Minyak Biji Labu Kuning (cm)			Rata-rata±SD
	Replikasi 1	Replikasi 2	Replikasi 3	
25,79 (tutup)	2,22	2,39	2,33	2,31±0,08
25,79 + 50	2,60	2,76	2,87	2,74±0,13
25,79 + 100	3,01	3,14	3,15	3,10±0,07
25,79 + 150	3,27	3,37	3,48	3,37±0,10
25,79 + 200	3,42	3,61	3,66	3,56±0,12
25,79 + 250	3,53	3,78	3,92	3,74±0,19

Formula 2

Beban (g)	Daya Sebar Nanoemulgel Minyak Biji Labu Kuning (cm)			Rata-rata±SD
	Replikasi 1	Replikasi 2	Replikasi 3	
25,79 (tutup)	2,51	2,24	2,12	2,29±0,19
25,79 + 50	2,85	2,61	2,20	2,55±0,32
25,79 + 100	3,17	2,86	2,57	2,86±0,30
25,79 + 150	3,34	3,25	3,00	3,19±0,17
25,79 + 200	3,54	3,35	3,09	3,32±0,22
25,79 + 250	3,64	3,48	3,18	3,43±0,23

Lampiran 11. Hasil Uji Daya Lekat Nanoemulgel MBLK

Replikasi	Hasil Daya Lekat (Detik)		Standar (Detik)
	F1	F2	
Replikasi 1	6	8	>4
Replikasi 1	7	9	>4
Replikasi 1	6	9	>4
Rata-rata	**6,33± 1,154**	**8,6 ± 0,577**	**>4**

Uji	Dokumentasi
Daya Lekat	

Lampiran 12. Hasil Uji Organoleptis Setelah *Cycling test*

Formula 1

Formula 2

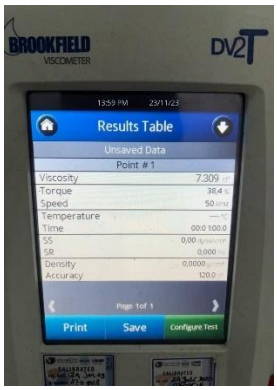

Lampiran 13. Hasil Uji pH Nanoemulgel MBLK Setelah *Cycling test*

Replikasi	Sebelum	Sesudah	Standar
F1R1	6,71	5,58	4,5-7
F1R2	5,58	5,13	4,5-7
F1R3	6,22	5,87	4,5-7
Rata-rata ± SD	**6,17 ± 0,567**	**5,512 ± 0,372**	4,5-7
F2R1	6,22	5,61	4,5-7
F2R2	6,15	5,59	4,5-7
F2R3	6,08	5,34	4,5-7
Rata-rata ± SD	**6,15 ± 0,075**	**5,513 ± 0,150**	4,5-7

Replikasi	Formulasi 1	Formulasi 2
Replikasi 1		
Replikasi 2		
Replikasi 3		

Lampiran 14. Hasil Viskositas Nanoemulgel MBLK Setelah *Cycling test*

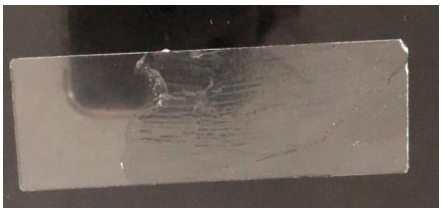
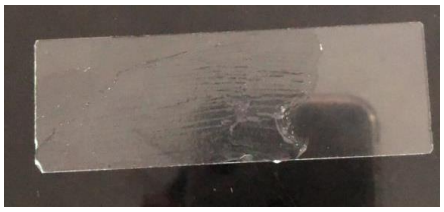
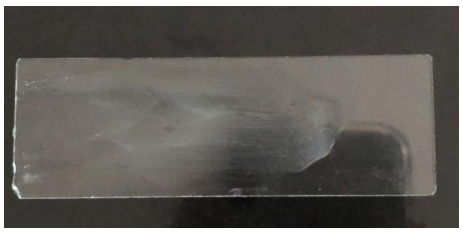
Replikasi	Hasil Uji Viskositas (cP)		Standar
	Sebelum	Sesudah	
F1R1	4.608	4.105	500-10000 cP
F1R2	4.596	3.971	500-10000 cP
F1R3	4.452	4.955	500-10000 cP
Rata-rata ± SD	**4.552 ± 0,086**	**4.343 ± 533,65**	500-10000 cP
F2R1	8.124	7.309	500-10000 cP
F2R2	9.012	8.642	500-10000 cP
F2R3	9.612	8.722	500-10000 cP
Rata-rata ± SD	**8.916 ± 0,748 cP**	**8.224 ± 793,71 cP**	500-10000 cP

Replikasi	Formulasi 1	Formulasi 2
Replikasi 1		
Replikasi 2		

Replikasi 3	 BROOKFIELD VISCOMETER DV2T 13:44 PM 23/11/23 Results Table Unsaved Data Point # 1 Viscosity 4.955 Torque 38.4 Speed 50 Temperature Time 00:0 100.0 SS 0.00 SR 0.000 Density 0.0000 Accuracy 120.0 Page 1of 1 Print Save Configure Test	 BROOKFIELD VISCOMETER DV2T 14:16 PM 23/11/23 Results Table Unsaved Data Point # 1 Viscosity 8.722 Torque 38.4 Speed 50 Temperature Time 00:0 100.0 SS 0.00 SR 0.000 Density 0.0000 Accuracy 120.0 Page 1of 1 Print Save Configure Test

Lampiran 15. Hasil Uji Homogenitas Setelah *Cycling test*

Replikasi	Formula 1	Formula 2
1	Homogen	Homogen
2	Homogen	Homogen
3	homogen	homogen

Replikasi	Formulasi 1	Formulasi 2
Replikasi 1		
Replikasi 2		
Replikasi 3		

Lampiran 16. Hasil Uji Daya Lekat Setelah *Cycling test*

Formula	Hasil Daya Lekat (Detik)		Standar (Detik)
	Sebelum	Sesudah	
F1R1	6	5	>4
F1R2	7	5	>4
F1R3	6	4	>4
Rata-rata ± SD	**6,33 ± 1,154**	**4,66 ± 0,577**	**>4**
F2R1	8	7	>4
F2R2	9	8	>4
F2R3	9	7	>4
Rata-rata ± SD	**8,6 ± 0,577**	**7,33 ± 0,577**	**>4**

Keterangan:

F1R1: Formula 1 Replikasi 1
F1R2: Formula 2 Replikasi 2
F1R3: Formula 3 Replikasi 3
F2R1: Formula 2 Replikasi 1
F2R2: Formula 2 Replikasi 2
F2R3: Formula 2 Replikasi 3

Lampiran 17. Hasil Uji Daya Daya Sebear Setelah *Cycling test*

Formula 1

Beban (g)	Daya Sebar Nanoemulgel Minyak Biji Labu Kuning (cm)			Rata-rata±SD
	Replikasi 1	Replikasi 2	Replikasi 3	
25,79 (tutup)	3,06	3,18	3,33	3,19±0,13
25,79 + 50	3,26	3,44	3,52	3,40±0,13
25,79 + 100	3,49	3,61	3,64	3,58±0,07
25,79 + 150	3,77	3,73	3,77	3,75±0,02
25,79 + 200	3,79	3,88	3,94	3,87±0,07
25,79 + 250	3,79	3,89	4,00	3,89±0,10

Formula 2

Beban (g)	Daya Sebar Nanoemulgel Minyak Biji Labu Kuning (cm)			Rata-rata±SD
	Replikasi 1	Replikasi 2	Replikasi 3	
25,79 (tutup)	2,84	2,85	2,70	2,79±0,08
25,79 + 50	3,08	3,00	2,84	2,97±0,12
25,79 + 100	3,19	3,08	2,99	3,08±0,10
25,79 + 150	3,40	3,16	3,12	3,22±0,15
25,79 + 200	3,46	3,17	3,19	3,27±0,16
25,79 + 250	2,84	3,17	3,20	3,07±0,19

Lampiran 18. Hasil SPSS Nilai pH Nanoemulgel MBLK

Descriptives

	Nama Formula			Statistic	Std. Error
Pengukuran pH	F1	Mean		5.5367	.21674
		95% Confidence Interval for Mean	Lower Bound	4.6041	
			Upper Bound	6.4692	
		5% Trimmed Mean		.	
		Median		5.6100	
		Variance		.141	
		Std. Deviation		.37541	
		Minimum		5.13	
		Maximum		5.87	
		Range		.74	
		Interquartile Range		.	
		Skewness		-.845	1.225
		Kurtosis		.	.
	F2	Mean		5.5000	.08021
		95% Confidence Interval for Mean	Lower Bound	5.1549	
			Upper Bound	5.8451	
		5% Trimmed Mean		.	
		Median		5.5700	
		Variance		.019	
		Std. Deviation		.13892	
		Minimum		5.34	
		Maximum		5.59	
		Range		.25	
		Interquartile Range		.	
		Skewness		-1.692	1.225
		Kurtosis		.	.

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Nama_Formula	Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Pengukuran_pH	F1	.206	3	.	.993	3	.835
	F2	.184	3	.	.999	3	.927

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Hasil_Pengukuran_pH	Based on Mean	4.015	1	4	.116
	Based on Median	2.771	1	4	.171
	Based on Median and with adjusted df	2.771	1	2.067	.234
	Based on trimmed mean	3.936	1	4	.118

ANOVA

Hasil_Pengukuran_pH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.001	1	.001	.004	.955
Within Groups	.655	4	.164		
Total	.655	5			

Lampiran 19. Hasil SPSS Nilai Viskositas Nanoemulgel MBLK

Descriptives

	Nama_Formula			Statistic	Std. Error
Hasil_Pengukuran_Uji Viskositas	F1	Mean		4.55	.050
		95% Confidence Interval for Mean	Lower Bound	4.34	
			Upper Bound	4.77	
		5% Trimmed Mean		.	
		Median		4.60	
		Variance		.008	
		Std. Deviation		.087	
		Minimum		4	
		Maximum		5	
		Range		0	
		Interquartile Range		.	
		Skewness		-1.695	1.225
		Kurtosis		.	.
	F2	Mean		8.92	.432
		95% Confidence Interval for Mean	Lower Bound	7.06	
			Upper Bound	10.78	
		5% Trimmed Mean		.	
		Median		9.01	
		Variance		.560	
		Std. Deviation		.749	
		Minimum		8	
		Maximum		10	
		Range		1	
		Interquartile Range		.	
		Skewness		-.568	1.225
		Kurtosis		.	.

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Nama_Formula	Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Pengukuran_Uji Viskositas	F1	.361	3	.	.807	3	.132
	F2	.218	3	.	.988	3	.787

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Hasil_Pengukuran_Viskositas	Based on Mean	4.461	1	4	.102
	Based on Median	2.795	1	4	.170
	Based on Median and with adjusted df	2.795	1	2.124	.229
	Based on trimmed mean	4.350	1	4	.105

ANOVA

Hasil_Pengukuran_Uji Viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	28.567	1	28.567	100.590	.001
Within Groups	1.136	4	.284		
Total	29.703	5			

Lampiran 20. Hasil SPSS Daya Sebar Nanoemulgel MBLK

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	Nama_Formula	N	Percent	N	Percent	N	Percent
Hasil_Pengukuran_Daya_Sebar	Formula 1	3	100.0%	0	0.0%	3	100.0%
	Formula 2	3	100.0%	0	0.0%	3	100.0%

Descriptives

	Formula			Statistic	Std. Error
Hasil Uji Daya Sebar	Formula 1	Mean		3.74700	.112509
		95% Confidence Interval for Mean	Lower Bound	3.26291	
			Upper Bound	4.23109	
		5% Trimmed Mean		.	
		Median		3.78200	
		Variance		.038	
		Std. Deviation		.194872	
		Minimum		3.537	
		Maximum		3.922	
		Range		.385	
		Interquartile Range		.	
		Skewness		-.782	1.225
		Kurtosis		.	.
	Formula 2	Mean		3.43800	.133433
		95% Confidence Interval for Mean	Lower Bound	2.86388	
			Upper Bound	4.01212	
		5% Trimmed Mean		.	
		Median		3.48500	
		Variance		.053	
		Std. Deviation		.231113	
		Minimum		3.187	
		Maximum		3.642	
		Range		.455	
		Interquartile Range		.	
		Skewness		-.877	1.225
		Kurtosis		.	.

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
Hasil Uji Daya Sebar	Formula 1	.238	3	.	.976	3	.702
	Formula 2	.247	3	.	.969	3	.662

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Hasil Uji Daya Sebar	Based on Mean	.112	1	4	.755
	Based on Median	.044	1	4	.845
	Based on Median and with adjusted df	.044	1	3.860	.845
	Based on trimmed mean	.106	1	4	.761

ANOVA

Hasil Uji Daya Sebar

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.143	1	.143	3.134	.151
Within Groups	.183	4	.046		
Total	.326	5			

Lampiran 21. Hasil SPSS Daya Lekat Nanoemulgel MBLK

Descriptives

	Nama_Formula			Statistic	Std. Error
Hasil_Pengukuran_Daya Lekat	F1	Mean		6.67	.667
		95% Confidence Interval for Mean	Lower Bound	3.80	
			Upper Bound	9.54	
		5% Trimmed Mean		.	
		Median		6.00	
		Variance		1.333	
		Std. Deviation		1.155	
		Minimum		6	
		Maximum		8	
		Range		2	
		Interquartile Range		.	
		Skewness		1.732	1.225
		Kurtosis		.	.
	F2	Mean		8.67	.333
		95% Confidence Interval for Mean	Lower Bound	7.23	
			Upper Bound	10.10	
		5% Trimmed Mean		.	
		Median		9.00	
		Variance		.333	
		Std. Deviation		.577	
		Minimum		8	
		Maximum		9	
		Range		1	
		Interquartile Range		.	
		Skewness		-1.732	1.225
		Kurtosis		.	.

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Nama_Formula	Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Pengukuran_Daya Lekat	F1	.385	3	.	.750	3	.000
	F2	.385	3	.	.750	3	.000

a. Lilliefors Significance Correction

NPar Tests

Kruskal-Wallis Test

Ranks

	Nama_Formula	N	Mean Rank
Hasil_Pengukuran_Daya_Lekat	F1	3	2.00
	F2	3	5.00
	Total	6	

Test Statistics[a,b]

	Hasil_Pengukuran_Daya_Lekat
Kruskal-Wallis H	4.091
df	1
Asymp. Sig.	.043

a. Kruskal Wallis Test

b. Grouping Variable: Nama_Formula

Lampiran 22. Hasil Uji Sineresis

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	Formula	N	Percent	N	Percent	N	Percent
Hasil_Pengukuran_Uji Sineresi	F1 24 jam	3	100.0%	0	0.0%	3	100.0%
	F1 48 jam	3	100.0%	0	0.0%	3	100.0%
	F1 72 jam	3	100.0%	0	0.0%	3	100.0%
	F2 24 jam	3	100.0%	0	0.0%	3	100.0%
	F2 48 jam	3	100.0%	0	0.0%	3	100.0%
	F2 72 jam	3	100.0%	0	0.0%	3	100.0%

Descriptives

	Formula			Statistic	Std. Error
Hasil_Pengukuran_Uji Sineresi	F1 24 jam	Mean		.367	.0333
		95% Confidence Interval for Mean	Lower Bound	.223	
			Upper Bound	.510	
		5% Trimmed Mean		.	
		Median		.400	
		Variance		.003	
		Std. Deviation		.0577	
		Minimum		.3	
		Maximum		.4	
		Range		.1	
		Interquartile Range		.	
		Skewness		-1.732	1.225
		Kurtosis		.	.
	F1 48 jam	Mean		.767	.0333
		95% Confidence Interval for Mean	Lower Bound	.623	
			Upper Bound	.910	
		5% Trimmed Mean		.	
		Median		.800	
		Variance		.003	
		Std. Deviation		.0577	
		Minimum		.7	
		Maximum		.8	
		Range		.1	
		Interquartile Range		.	
		Skewness		-1.732	1.225
		Kurtosis		.	.
	F1 72 jam	Mean		.667	.0882
		95% Confidence Interval for Mean	Lower Bound	.287	
			Upper Bound	1.046	
		5% Trimmed Mean		.	
		Median		.700	
		Variance		.023	
		Std. Deviation		.1528	
		Minimum		.5	
		Maximum		.8	
		Range		.3	

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Pengukuran_Uji Sineresi	F1 24 jam	.385	3	.	.750	3	.000
	F1 48 jam	.385	3	.	.750	3	.000
	F1 72 jam	.253	3	.	.964	3	.637
	F2 24 jam	.253	3	.	.964	3	.637
	F2 48 jam	.385	3	.	.750	3	.000
	F2 72 jam	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

NPar Tests

Kruskal-Wallis Test

Ranks

	Formula	N	Mean Rank
Hasil_Pengukuran_Uji Sineresi	F1 24 jam	3	2.00
	F1 48 jam	3	5.00
	Total	6	

Test Statistics[a,b]

	Hasil_Pengukuran_Uji Sineresi
Kruskal-Wallis H	4.091
df	1
Asymp. Sig.	.043

a. Kruskal Wallis Test

b. Grouping Variable: Formula

Lampiran 23. Hasil SPSS Nilai pH Nanoemulgel Sesudah *Cycling test*

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Sebelum Cycling Test	6.1600	6	.36128	.14749
	Sesudah Cycling Test	5.5200	6	.25440	.10386

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Sebelum Cycling Test & Sesudah Cycling Test	6	.651	.161

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	Sebelum Cycling Test - Sesudah Cycling Test	.64000	.27481	.11219	.35161	.92839	5.705	5	.002

Lampiran 24. Hasil SPSS Nilai Viskositas Nanoemulgel Sesudah *Cycling test*

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Sebelum Cycling Test	6734.00	6	2437.323	995.033
	Sesudah Cycling Test	6284.00	6	2209.927	902.199

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Sebelum Cycling Test & Sesudah Cycling Test	6	.981	.001

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	Sebelum Cycling Test - Sesudah Cycling Test	450.000	504.949	206.145	-79.912	979.912	2.183	5	.081

Lampiran 25. Hasil SPSS Daya Sebar Nanoemulgel Sesudah *Cycling test*

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Formula	1.50	12	.522	.151
	Hasil Pengukuran Daya Sebar Cycling Test	3.5875	12	.29729	.08582

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Formula & Hasil Pengukuran Daya Sebar Cycling Test	12	-.003	.993

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 - Hasil Pengukuran Daya Sebar Cycling Test	-2.08750	.60168	.17369	-2.46979	-1.70521	-12.019	11	.000

Lampiran 26. Hasil SPSS Daya Lekat Nanoemulgel sesudah *Cycling test*

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Sebelum Cycling Test	7.50	6	1.378	.563
	Sesudah Cycling Test	6.00	6	1.549	.632

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Sebelum Cycling Test & Sesudah Cycling Test	6	.937	.006

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	Sebelum Cycling Test - Sesudah Cycling Test	1.500	.548	.224	.925	2.075	6.708	5	.001

Lampiran 27. Hasil SPSS IC_{50} Nanoemulgel MBLK

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	Nama_Fornula	N	Percent	N	Percent	N	Percent
Hasil_Pengukuran_IC50	Formula 1	3	100.0%	0	0.0%	3	100.0%
	Formula 2	3	100.0%	0	0.0%	3	100.0%

Descriptives

	Nama_Fornula			Statistic	Std. Error
Hasil_Pengukuran_IC50	Formula 1	Mean		22.90200	.457030
		95% Confidence Interval for Mean	Lower Bound	20.93556	
			Upper Bound	24.86844	
		5% Trimmed Mean		.	
		Median		22.82800	
		Variance		.627	
		Std. Deviation		.791598	
		Minimum		22.150	
		Maximum		23.728	
		Range		1.578	
		Interquartile Range		.	
		Skewness		.417	1.225
		Kurtosis		.	.
	Formula 2	Mean		18.05733	.503630
		95% Confidence Interval for Mean	Lower Bound	15.89039	
			Upper Bound	20.22428	
		5% Trimmed Mean		.	
		Median		18.33100	
		Variance		.761	
		Std. Deviation		.872313	
		Minimum		17.081	
		Maximum		18.760	
		Range		1.679	
		Interquartile Range		.	
		Skewness		-1.273	1.225
		Kurtosis		.	.

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Nama_Fornula	Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Pengukuran_IC50	Formula 1	.204	3	.	.993	3	.845
	Formula 2	.290	3	.	.926	3	.474

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Hasil_Pengukuran_IC50	Based on Mean	.101	1	4	.766
	Based on Median	.005	1	4	.945
	Based on Median and with adjusted df	.005	1	3.681	.945
	Based on trimmed mean	.090	1	4	.779

ANOVA

Hasil_Pengukuran_IC50

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	35.206	1	35.206	50.746	.002
Within Groups	2.775	4	.694		
Total	37.981	5			

Lampiran 28. Perhitungan Uji Sineresis

24 jam

Replikasi	Formual 1	Formula 2
1	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}996\text{ g}}{1\ g}$ x 100% **= 0,4%**	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}992\text{ g}}{1\ g}$ x 100% **= 0,8%**
2	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}997\text{ g}}{1\ g}$ x 100% **= 0,3%**	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}993\text{ g}}{1\ g}$ x 100% **= 0,7%**
3	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}996\text{ g}}{1\ g}$ x 100% **= 0,4%**	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}992\text{ g}}{1\ g}$ x 100% **= 0,8%**

48 jam

Replikasi	Formual 1	Formula 2
1	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}995\text{ g}}{1\ g}$ x 100% **= 0,5%**	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0990\text{ g}}{1\ g}$ x 100% **= 1%**
2	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}993\text{ g}}{1\ g}$ x 100% **= 0,7%**	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}988\text{ g}}{1\ g}$ x 100% **= 1,2%**
3	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}992\text{ g}}{1\ g}$ x 100% **= 0,8%**	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}986\text{ g}}{1\ g}$ x 100% **= 1,4%**

72 jam

Replikasi	Formual 1	Formula 2
1	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}993\text{ g}}{1\ g}$ x 100% = **0,7%**	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}987\text{ g}}{1\ g}$ x 100% = **1,3%**
2	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}992\text{ g}}{1\ g}$ x 100% = **0,8%**	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}986\text{ g}}{1\ g}$ x 100% = **1,4%**
3	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}990\text{ g}}{1\ g}$ x 100% = **1%**	$= \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}}$ x 100% $= \frac{1\text{ g} - 0{,}985\text{ g}}{1\ g}$ x 100% = **1,5%**

Lampiran 29. Perhitungan Vitamin C

Perhitungan Larutan Vitamin C 100 ppm

$$\text{ppm} = \frac{\text{Massa zat terlarut (mg)}}{\text{Volume Larutan (L)}}$$

$$\text{ppm} = \frac{10\text{ mg}}{0{,}1\text{ L}}$$

$$= 100 \text{ ppm}$$

Perhitungan Seri Konsentrasi Larutan Vitamin C 2;4;6;8;10 ppm

i. Seri Konsentrasi Larutan Vitamin C 2 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 2 ppm

$$V1 = \frac{200 \text{ ml}/\cancel{\text{ppm}}}{100\cancel{\text{ ppm}}}$$

V1 = 2 mL

ii. Seri Konsentrasi Larutan Vitamin C 4 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 4 ppm

$$V1 = \frac{400 \text{ ml}/\cancel{\text{ppm}}}{100\cancel{\text{ ppm}}}$$

V1 = 4 mL

iii. Seri Konsentrasi Larutan Vitamin C 6 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 6 ppm

$$V1 = \frac{600 \text{ ml}/\cancel{\text{ppm}}}{100\cancel{\text{ ppm}}}$$

V1 = 6 mL

iv. Seri Konsentrasi Larutan Vitamin C 8 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 2 ppm

$V1 = \frac{800\ ml/\cancel{ppm}}{100\ \cancel{ppm}}$

V1 = 8 mL

v. Seri Konsentrasi Larutan Vitamin C 10 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 2 ppm

$V1 = \frac{1000\ ml/\cancel{ppm}}{100\ \cancel{ppm}}$

V1 = 10 mL

Lampiran 30. Perhitungan Larutan Minyak Biji Labu Kuning

Larutan Minyak Biji Labu Kuning 100 ppm

$$\text{ppm} = \frac{\text{Massa zat terlarut (mg)}}{\text{Volume Larutan (L)}}$$

$$\text{ppm} = \frac{10\ \text{mg}}{0{,}1\ \text{L}}$$

$$= 100\ \text{ppm}$$

Perhitungan Seri Konsentrasi Larutan Minyak Biji Labu Kuning 2;4;6;8;10 ppm

a. Seri Konsentrasi Larutan Minyak Biji Labu Kuning 2 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 2 ppm

$$V1 = \frac{200\ \text{ml}/\cancel{\text{ppm}}}{100\ \cancel{\text{ppm}}}$$

V1 = 2 mL

b. Seri Konsentrasi Larutan Minyak Biji Labu Kuning 4 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 4 ppm

$$V1 = \frac{400\ \text{ml}/\cancel{\text{ppm}}}{100\ \cancel{\text{ppm}}}$$

V1 = 4 mL

c. Seri Konsentrasi Larutan Minyak Biji Labu Kuning 6 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 6 ppm

$$V1 = \frac{600\ \text{ml}/\cancel{\text{ppm}}}{100\ \cancel{\text{ppm}}}$$

V1 = 6 mL

d. Seri Konsentrasi Larutan Minyak Biji Labu Kuning 8 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 2 ppm

$$V1 = \frac{800\ ml/\cancel{ppm}}{100\ \cancel{ppm}}$$

V1 = 8 mL

e. Seri Konsentrasi Larutan Minyak Biji Labu Kuning 10 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 2 ppm

$$V1 = \frac{1000\ ml/\cancel{ppm}}{100\ \cancel{ppm}}$$

V1 = 10 mL

Lampiran 31. Perhitungan Larutan Nanoemulsi Minyak Biji Labu Kuning

Larutan Nanoemulsi Minyak Biji Labu Kuning100 ppm

$$\text{ppm} = \frac{\text{Massa zat terlarut (mg)}}{\text{Volume Larutan (L)}}$$

$$\text{ppm} = \frac{10\ \text{mg}}{0{,}1\ \text{L}}$$

$$= 100\ \text{ppm}$$

Perhitungan Seri Konsentrasi Larutan Nanoemulsi Minyak Biji Labu Kuning 2;4;6;8;10 ppm

a. Seri Konsentrasi Larutan Nanoemulsi Minyak Biji Labu Kuning 2 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 2 ppm

$$V1 = \frac{200\ \text{ml}/\cancel{\text{ppm}}}{100\ \cancel{\text{ppm}}}$$

V1 = 2 mL

b. Seri Konsentrasi Larutan Nanoemulsi Minyak Biji Labu Kuning 4 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 4 ppm

$$V1 = \frac{400\ \text{ml}/\cancel{\text{ppm}}}{100\ \cancel{\text{ppm}}}$$

V1 = 4 mL

c. Seri Konsentrasi Larutan Nanoemulsi Minyak Biji Labu Kuning 6 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 6 ppm

$$V1 = \frac{600\ \text{ml}/\cancel{\text{ppm}}}{100\ \cancel{\text{ppm}}}$$

V1 = 6 mL

d. Seri Konsentrasi Larutan Nanoemulsi Minyak Biji Labu Kuning 8 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 2 ppm

$$V1 = \frac{800\ ml/\cancel{ppm}}{100\ \cancel{ppm}}$$

V1 = 8 mL

e. Seri Konsentrasi Larutan Nanoemulsi Minyak Biji Labu Kuning 10 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 2 ppm

$$V1 = \frac{1000\ ml/\cancel{ppm}}{100\ \cancel{ppm}}$$

V1 = 10 mL

Lampiran 32. Perhitungan Larutan Nanoemulgel Minyak Biji Labu Kuning

Larutan Nanoemulgel Minyak Biji Labu Kuning 100 ppm

$$\text{ppm} = \frac{\text{Massa zat terlarut (mg)}}{\text{Volume Larutan (L)}}$$

$$\text{ppm} = \frac{10\ \text{mg}}{0{,}1\ \text{L}}$$

$$= 100\ \text{ppm}$$

Perhitungan Seri Konsentrasi Larutan Nanoemulgel Minyak Biji Labu Kuning 2;4;6;8;10 ppm

a. Seri Konsentrasi Larutan Nanoemulgel Minyak Biji Labu Kuning 2 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 2 ppm

$$V1 = \frac{200\ \text{ml}/\cancel{\text{ppm}}}{100\ \cancel{\text{ppm}}}$$

V1 = 2 mL

b. Seri Konsentrasi Larutan Nanoemulgel Minyak Biji Labu Kuning 4 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 4 ppm

$$V1 = \frac{400\ \text{ml}/\cancel{\text{ppm}}}{100\ \cancel{\text{ppm}}}$$

V1 = 4 mL

c. Seri Konsentrasi Larutan Nanoemulgel Minyak Biji Labu Kuning 6 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 6 ppm

$$V1 = \frac{600\ \text{ml}/\cancel{\text{ppm}}}{100\ \cancel{\text{ppm}}}$$

V1 = 6 mL

d. Seri Konsentrasi Larutan Nanoemulgel Minyak Biji Labu Kuning 8 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 2 ppm

$$V1 = \frac{800\ ml/\cancel{ppm}}{100\ \cancel{ppm}}$$

V1 = 8 mL

e. Seri Konsentrasi Larutan Nanoemulgel Minyak Biji Labu Kuning 10 ppm

V1 x C1 = V2 x C2

V1 x 100 ppm = 100 ml x 2 ppm

$$V1 = \frac{1000\ ml/\cancel{ppm}}{100\ \cancel{ppm}}$$

V1 = 10 Ml

Lampiran 33. Perhitungan %Inhibisi dan Kurva Regresi Linier Vitamin C

Blanko	Konsentrasi	Sampel	%Inhibisi
0,549	2 ppm	0,385	29,87249545
0,549	4 ppm	0,356	35,15482696
0,549	6 ppm	0,339	38,25136612
0,549	8 ppm	0,315	42,62295082
0,549	10 ppm	0,286	47,90528233

a. 2 ppm

$$\% \text{ Inhibisi } = \frac{\text{B}lanko - \text{ absorbansi sampel}}{\text{B}lanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi } = \frac{0,549 - 0,385}{0,549} \text{ x } 100\%$$

$$\% \text{ Inhibisi } = 29,87249545\%$$

b. 4 ppm

$$\% \text{ Inhibisi } = \frac{\text{B}lanko - \text{ absorbansi sampel}}{\text{B}lanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi } = \frac{0,549 - 0,356}{0,549} \text{ x } 100\%$$

$$\% \text{ Inhibisi } = 35,15482696\%$$

c. 6 ppm

$$\% \text{ Inhibisi } = \frac{\text{B}lanko - \text{ absorbansi sampel}}{\text{B}lanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi } = \frac{0,549 - 0,339}{0,549} \text{ x } 100\%$$

$$\% \text{ Inhibisi } = 38,25136612\%$$

d. 8 ppm

$$\% \text{ Inhibisi } = \frac{\text{B}lanko - \text{ absorbansi sampel}}{\text{B}lanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi } = \frac{0,549 - 0,315}{0,549} \text{ x } 100\%$$

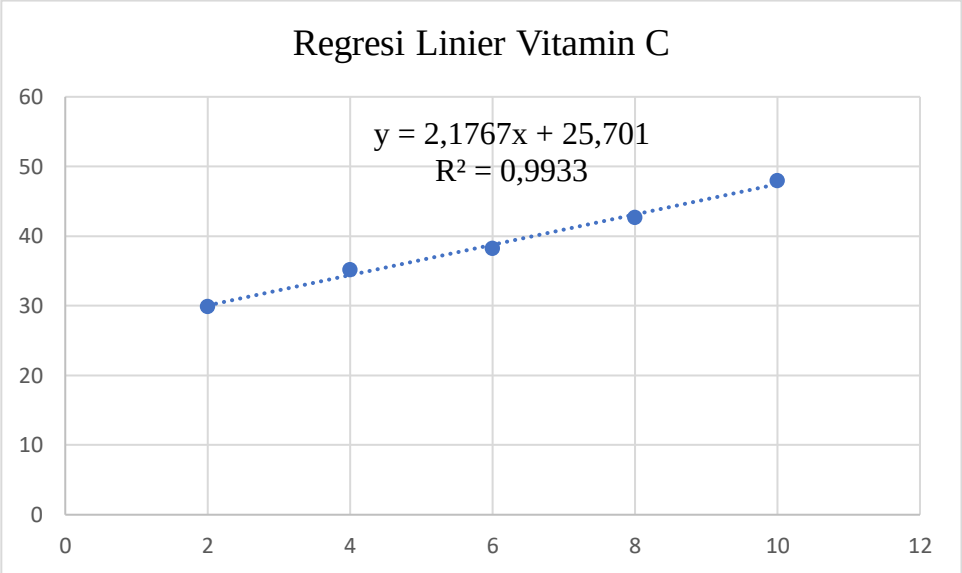
% Inhibisi = 42,62295082%

e. 10 ppm

% Inhibisi = $\frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi = $\frac{0,549 - 0,286}{0,549}$ x 100%

% Inhibisi = 47,90528233%



Perhitungan IC_{50} Vitamin C:

Y = bx + a

50 = 2,1767x + 25,701

x = $\frac{50 - 25.,01}{2,1767}$

x = 11,16322 ppm

Lampiran 34. Perhitungan %Inhibisi dan Kurva Regresi Linier Minyak Biji Labu Kuning

Blanko	Konsentrasi	Sampel	% Inhibisi
0,549	2	0,394	28,23315118
0,549	4	0,37	32,60473588
0,549	6	0,341	37,8870674
0,549	8	0,316	42,44080146
0,549	10	0,295	46,26593807

a. 2 ppm

$$\% \text{ Inhibisi } = \frac{Blanko - \text{ absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi } = \frac{0{,}549 - 0.394}{0{,}549} \text{ x } 100\%$$

$$\% \text{ Inhibisi } = 28{,}23315118\%$$

b. 4 ppm

$$\% \text{ Inhibisi } = \frac{Blanko - \text{ absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi } = \frac{0{,}549 - 0.37}{0{,}549} \text{ x } 100\%$$

$$\% \text{ Inhibisi } = 32{,}60473588\%$$

c. 6 ppm

$$\% \text{ Inhibisi } = \frac{Blanko - \text{ absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi } = \frac{0{,}549 - 0.341}{0{,}549} \text{ x } 100\%$$

$$\% \text{ Inhibisi } = 37{,}8870674\%$$

d. 8 ppm

$$\% \text{ Inhibisi } = \frac{Blanko - \text{ absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi } = \frac{0{,}549 - 0.316}{0{,}549} \text{ x } 100\%$$

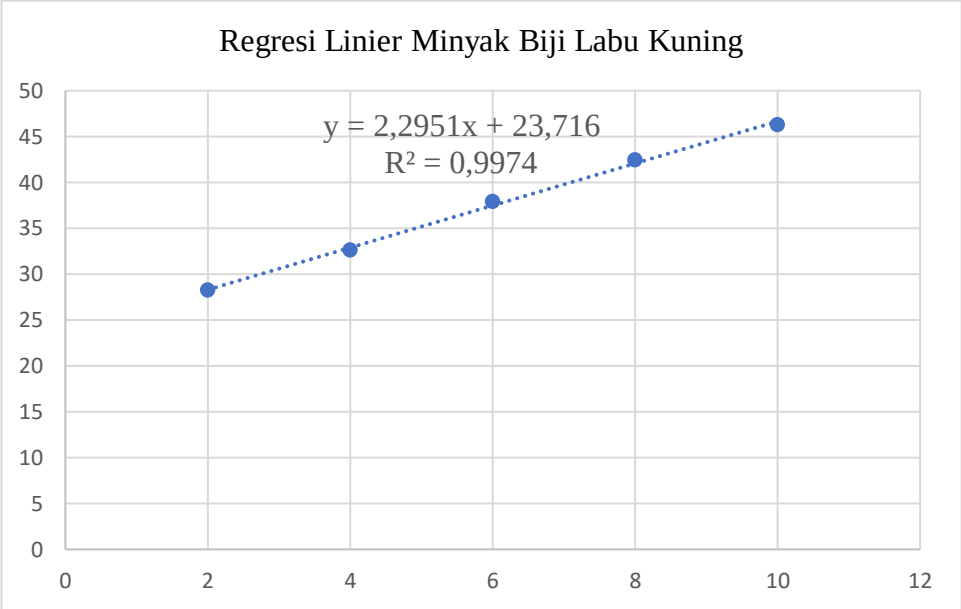
% Inhibisi = 42,44080146%

e. 10 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0{,}549 - 0.295}{0{,}549} \text{ x } 100\%$$

% Inhibisi = 46,26593807%



Perhitungan IC_{50} Minyak Biji Labu Kuning:

Y = 2,2951x + 23,716

50 = 2,2951x + 23,716

$$x = \frac{50 - 23{,}716}{2{,}2951}$$

x = 11,4522243 ppm

Lampiran 35. Perhitungan %Inhibisi dan Kurva Regresi Linier Nanoemulsi Minyak Biji Labu Kuning

Blanko	Konsentrasi	Sampel	% Inhibisi
0,549	2	0,409	25,50091075
0,549	4	0,376	31,51183971
0,549	6	0,357	34,9726776
0,549	8	0,332	39,52641166
0,549	10	0,309	43,71584699

a. 2 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{ absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0,549 - 0,409}{0,549} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = 25,50091075\%$$

b. 4 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{ absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0,549 - 0,376}{0,549} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = 31,51183971\%$$

c. 6 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{ absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0,549 - 0.357}{0,549} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = 34,9726776\%$$

d. 8 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{ absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0,549 - 0,332}{0,549} \text{ x } 100\%$$

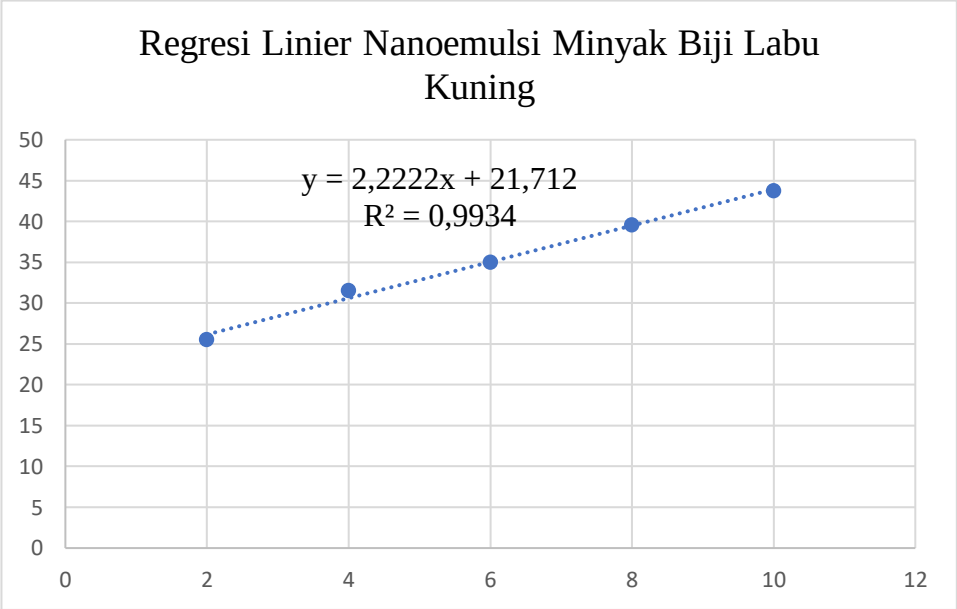
% Inhibisi = 39,52641166%

e. 10 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0{,}549 - 0.309}{0{,}549} \text{ x } 100\%$$

% Inhibisi = 43,71584699%



Perhitungan IC_{50} Nanoemulsi Minyak Biji Labu Kuning:

Y = 2,2222x + 21,712

50 = 2,2222x + 21,712

$$x = \frac{50 - 21{,}712}{2{,}2222}$$

x = 12,7297273 ppm

Lampiran 36. Perhitungan %Inhibisi dan Kurva Regresi Linier Nanoemulgel Minyak Biji Labu Kuning

1. Formula 1 Replikasi 1

Blanko	Konsentrasi	Sampel	% Inhibisi
0,549	2	0,478	12,93260474
0,549	4	0,452	17,66848816
0,549	6	0,434	20,94717668
0,549	8	0,415	24,40801457
0,549	10	0,397	27,6867031

a. 2 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0,549 - 0,478}{0,549} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = 12,93260474\%$$

b. 4 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0,549 - 0,452}{0,549} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = 17,66848816\%$$

c. 6 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0,549 - 0,434}{0,549} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = 20,94717668\%$$

d. 8 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0,549 - 0,415}{0,549} \text{ x } 100\%$$

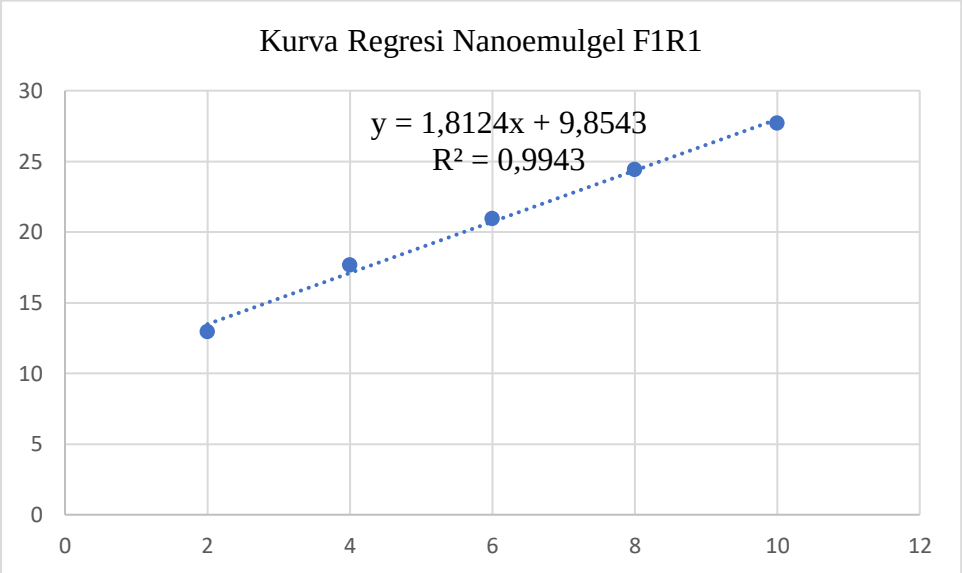
% Inhibisi = 24,40801457%

e. 10 ppm

% Inhibisi = $\frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi = $\frac{0{,}549 - 0{,}397}{0{,}549}$ x 100%

% Inhibisi = 27,6867031%



Perhitungan IC_{50} Nanoemulgel Minyak Biji Labu Kuning F1R1:

Y = 1,8124x + 9,8543

50 = 1,8124x + 9,8543

x = $\frac{50 - 9{,}8543}{1{,}8124}$

x = 22,15057382 ppm

2. Formula 1 Replikasi 2

Blanko	Konsentrasi	Sampel	% Inhibisi
0,549	2	0,468	14,75409836
0,549	4	0,449	18,21493625
0,549	6	0,432	21,31147541
0,549	8	0,408	25,68306011
0,549	10	0,4	27,14025501

a. 2 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{ absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0{,}549 - 0{,}468}{0{,}549} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = 14{,}75409836\%$$

b. 4 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{ absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0{,}549 - 0.449}{0{,}549} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = 18{,}21493625\%$$

c. 6 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{ absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0{,}549 - 0{,}432}{0{,}549} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = 21{,}31147541\%$$

d. 8 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{ absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0{,}549 - 0.408}{0{,}549} \text{ x } 100\%$$

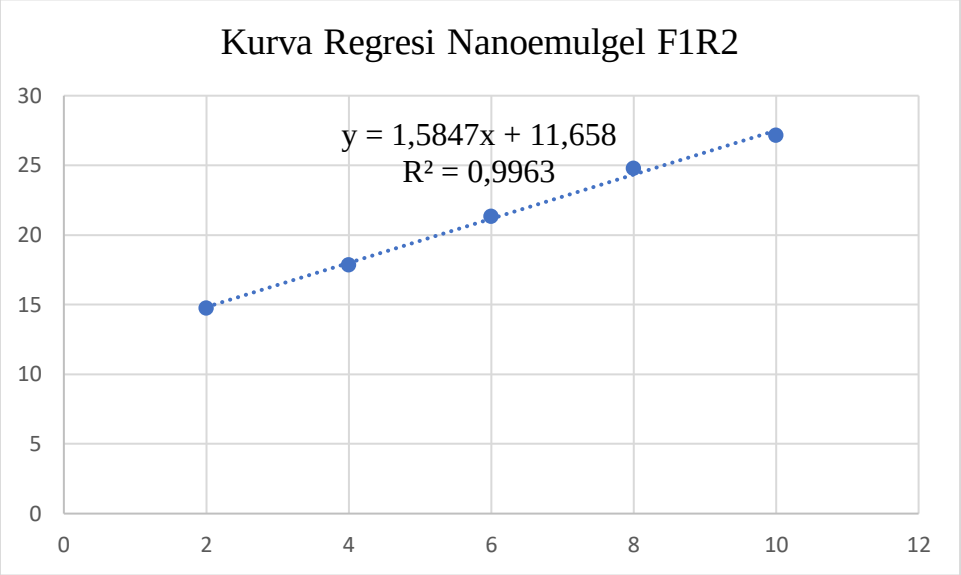
$$\% \text{ Inhibisi} = 25{,}68306011\%$$

e. 10 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{ absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0{,}549 - 0{,}4}{0{,}549} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = 27{,}14025501\%$$



Perhitungan IC_{50} Nanoemulgel Minyak Biji Labu Kuning F1R2:

Y = 1,5847x + 11,658

50 = 1,5847x + 11,658

$x = \frac{50-11,658}{1,5847}$

x = 24,19511579 ppm

3. Formula 1 Replikasi 3

Blanko	Konsentrasi	Sampel	% Inhibisi
0,549	2	0,466	15,11839709
0,549	4	0,442	19,48998179
0,549	6	0,426	22,40437158
0,549	8	0,407	25,86520947
0,549	10	0,393	28,41530055

a. 2 ppm

% Inhibisi $= \frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi $= \frac{0,549-0,466}{0,549}$ x 100%

% Inhibisi = 15,11839709%

b. 4 ppm

% Inhibisi $= \frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi $= \frac{0,549 - 0,442}{0,549}$ x 100%

% Inhibisi = 19,48998179%

c. 6 ppm

% Inhibisi $= \frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi $= \frac{0,549 - 0,426}{0,549}$ x 100%

% Inhibisi = 22,40437158%

d. 8 ppm

% Inhibisi $= \frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi $= \frac{0,549 - 0,407}{0,549}$ x 100%

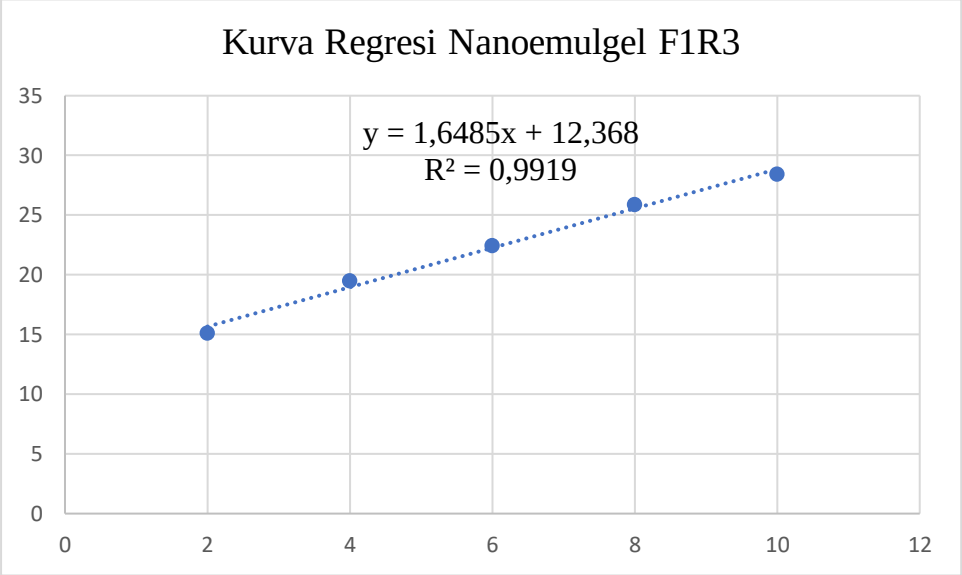
% Inhibisi = 25,86520947%

e. 10 ppm

% Inhibisi $= \frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi $= \frac{0,549 - 0,393}{0,549}$ x 100%

% Inhibisi = 28,41530055%



Perhitungan IC_{50} Nanoemulgel Minyak Biji Labu Kuning F1R2:

Y = 1,6485x + 12,368

50 = 1 1,6485x + 12,368

$x = \frac{50-12,368}{1,6485}$

x = 22,82802548 ppm

4. Formula 2 Replikasi 1

Blanko	Konsentrasi	Sampel	% Inhibisi
0,549	2	0,471	14,20765027
0,549	4	0,44	19,85428051
0,549	6	0,422	23,13296903
0,549	8	0,391	28,77959927
0,549	10	0,366	33,33333333

a. 2 ppm

% Inhibisi $= \frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi $= \frac{0,549-0,471}{0,549}$ x 100%

% Inhibisi = 14,20765027%

b. 4 ppm

% Inhibisi $= \frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi $= \frac{0,549 - 0,44}{0,549}$ x 100%

% Inhibisi = 19,85428051%

c. 6 ppm

% Inhibisi $= \frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi $= \frac{0,549 - 0,422}{0,549}$ x 100%

% Inhibisi = 23,13296903%

d. 8 ppm

% Inhibisi $= \frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi $= \frac{0,549 - 0,391}{0,549}$ x 100%

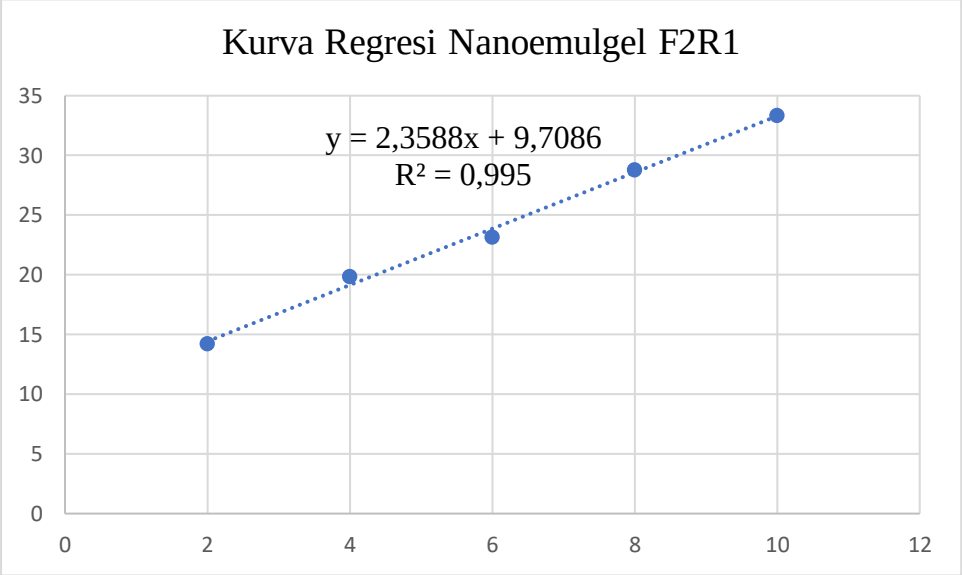
% Inhibisi = 28,77959927%

e. 10 ppm

% Inhibisi $= \frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi $= \frac{0,549 - 0,366}{0,549}$ x 100%

% Inhibisi = 33,33333333%



Perhitungan IC_{50} Nanoemulgel Minyak Biji Labu Kuning F2R1:

Y = 2,3588x + 9,7086

50 = 2,3588x + 9,7086

$x = \frac{50-9,7086}{2,3588}$

x = 17,08131253 ppm

5. Formula 2 Replikasi 2

Blanko	Konsentrasi	Sampel	% Inhibisi
0,549	2	0,491	10,56466302
0,549	4	0,463	15,66484517
0,549	6	0,431	21,49362477
0,549	8	0,412	24,95446266
0,549	10	0,389	29,143898

a. 2 ppm

% Inhibisi $= \frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi $= \frac{0,549-0,491}{0,549}$ x 100%

% Inhibisi = 10,56466302%

b. 4 ppm

% Inhibisi $= \frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi $= \frac{0,549 - 0,463}{0,549}$ x 100%

% Inhibisi = 15,66484517%

c. 6 ppm

% Inhibisi $= \frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi $= \frac{0,549 - 0,431}{0,549}$ x 100%

% Inhibisi = 21,49362477%

d. 8 ppm

% Inhibisi $= \frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi $= \frac{0,549 - 0,412}{0,549}$ x 100%

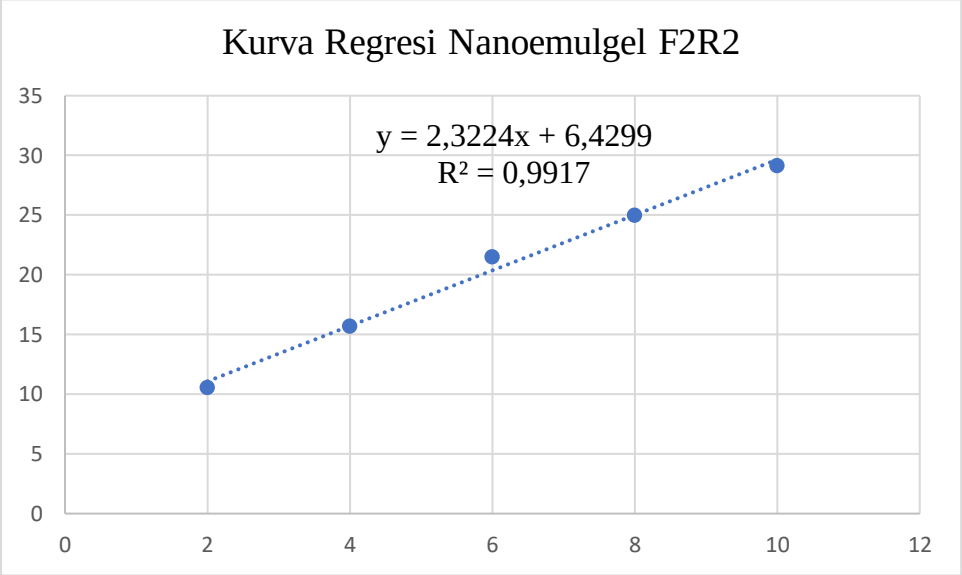
% Inhibisi = 24,95446266%

e. 10 ppm

% Inhibisi $= \frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi $= \frac{0,549 - 0,389}{0,549}$ x 100%

% Inhibisi = 29,143898%



Perhitungan IC_{50} Nanoemulgel Minyak Biji Labu Kuning F2R2:

Y = 2,3224x + 6,4299

50 = 2,3224x + 6,4299

$x = \frac{50-6,4299}{2,3224}$

x = 18,76080779 ppm

6. Formula 2 Replikasi 3

Blanko	Konsentrasi	Sampel	% Inhibisi
0,549	2	0,491	10,56466302
0,549	4	0,455	17,12204007
0,549	6	0,435	20,76502732
0,549	8	0,409	25,50091075
0,549	10	0,384	30,05464481

a. 2 ppm

% Inhibisi $= \frac{Blanko - \text{absorbansi sampel}}{Blanko}$ x 100%

% Inhibisi $= \frac{0,549-0,491}{0,549}$ x 100%

% Inhibisi = 10,56466302%

b. 4 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0{,}549 - 0{,}455}{0{,}549} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = 17{,}12204007\%$$

c. 6 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0{,}549 - 0{,}435}{0{,}549} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = 20{,}76502732\%$$

d. 8 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0{,}549 - 0{,}409}{0{,}549} \text{ x } 100\%$$

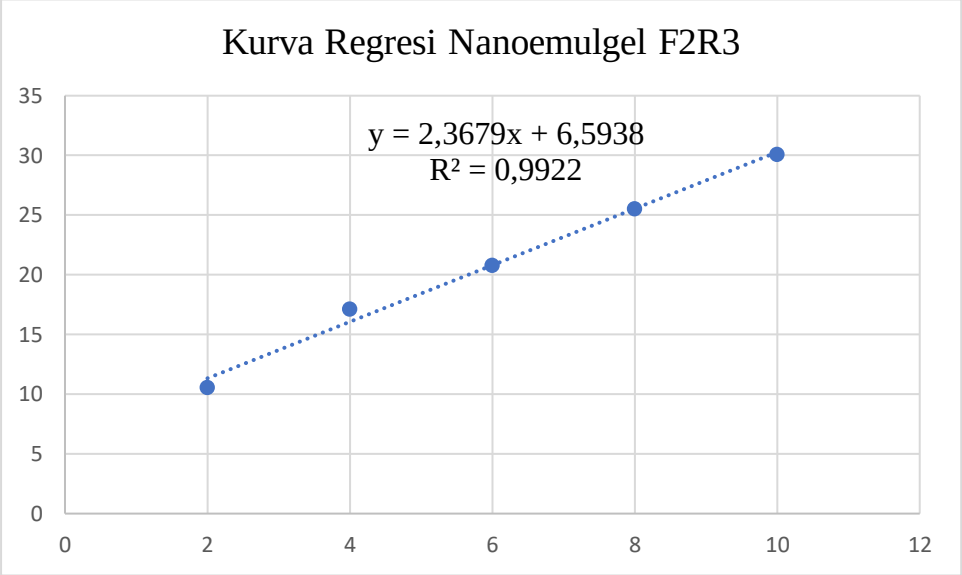
$$\% \text{ Inhibisi} = 25{,}50091075\%$$

e. 10 ppm

$$\% \text{ Inhibisi} = \frac{Blanko - \text{absorbansi sampel}}{Blanko} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = \frac{0{,}549 - 0{,}384}{0{,}549} \text{ x } 100\%$$

$$\% \text{ Inhibisi} = 30{,}05464481\%$$



Perhitungan IC_{50} Nanoemulgel Minyak Biji Labu Kuning F2R3:

Y = 2 2,3679x + 6,5938

50 = 2,3679x + 6,5938

$x = \frac{50-6,5938}{2,3679}$

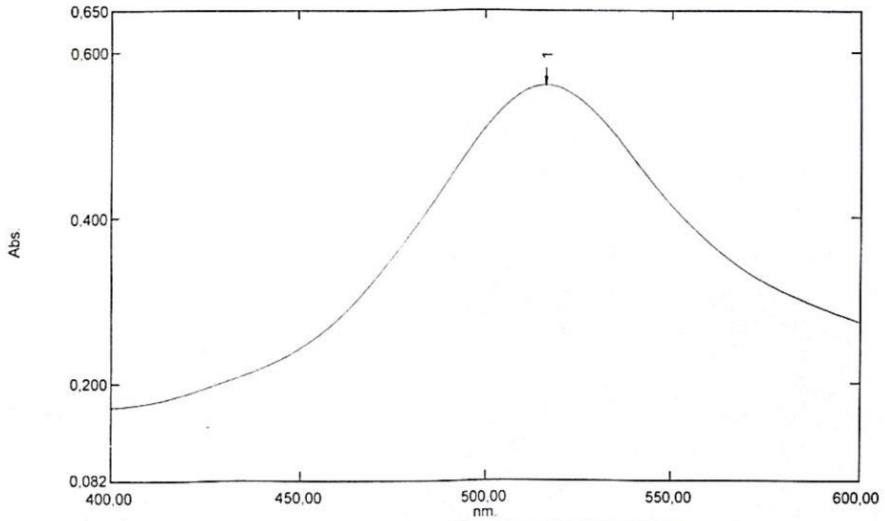
x = 18,33109506 ppm

Lampiran 37. Hasil Panjang Gelombang Maks DPPH

Spectrum Peak Pick Report

22/11/2023 13:39:40

Data Set: Panjang Gelombang 20 ppm_133833 - RawData



No.	P/V	Wavelength	Abs.	Description
1	⊕	516.20	0.562	

[Measurement Properties]
Wavelength Range (nm.): 400.00 to 600.00
Scan Speed: Fast
Sampling Interval: 0.2
Auto Sampling Interval: Enabled
Scan Mode: Auto

[Instrument Properties]
Instrument Type: UV-1800 Series
Measuring Mode: Absorbance
Slit Width: 1.0 nm
Light Source Change Wavelength: 340.0 nm
S/R Exchange: Normal

[Attachment Properties]
Attachment: None

[Operation]
Threshold: 0.0010000
Points: 1
InterPolate: Disabled
Average: Disabled

[Sample Preparation Properties]
Weight:
Volume:
Dilution:
Path Length:
Additional Information:

Page 1 / 1

Lampiran 38. Hasil *Operating Time*

Kinetics Data Print Report

22/11/2023 14:36:46

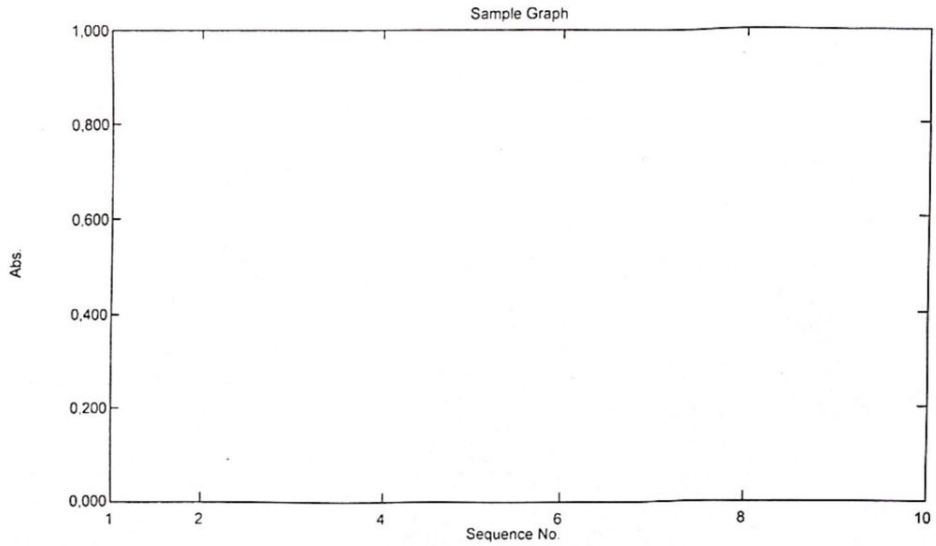
Time (Minute)	RawData ...
1.000	0.550
2.000	0.551
3.000	0.552
4.000	0.552
5.000	0.552
6.000	0.552
7.000	0.552
8.000	0.552
9.000	0.552
10.000	0.552
11.000	0.552
12.000	0.552
13.000	0.552
14.000	0.552
15.000	0.552
16.000	0.552
17.000	0.552
18.000	0.552
19.000	0.552
20.000	0.552
21.000	0.553
22.000	0.553
23.000	0.554
24.000	0.554
25.000	0.554
26.000	0.552
27.000	0.551
28.000	0.551
29.000	0.550
30.000	0.551

Lampiran 39. Hasil Absorbansi Blanko

Sample Table Report

23/11/2023 09:55:25

File Name: C:\Users\HP\Documents\Revita Skripsi\blangko dpph.pho



Sample Table

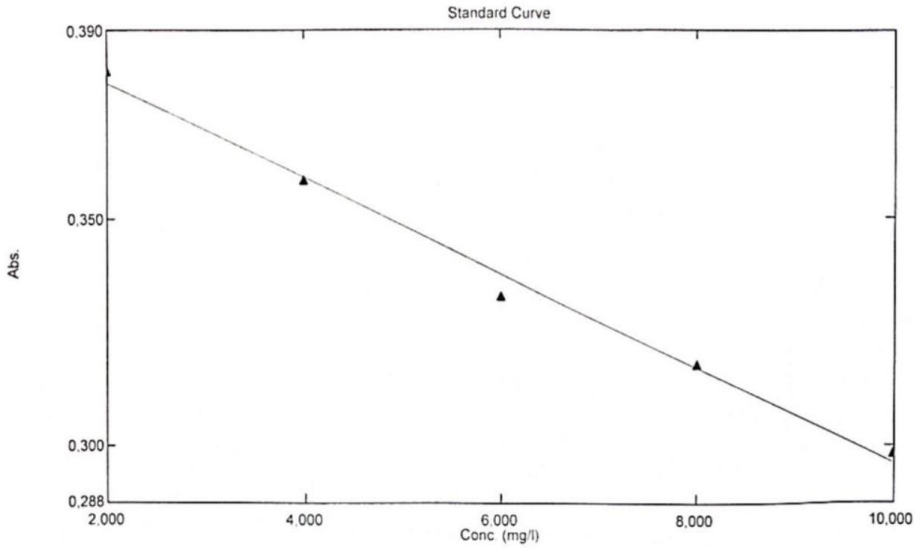
	Sample ID	Type	Ex	Conc	WL516,2	Comments
1	blangko	Unknown		*****	0.549	
2						

Lampiran 40. Hasil Absorbansi Vitamin C

Standard Table Report

24/11/2023 13:01:26

File Name: C:\Users\HP\Documents\Revita Skripsi\vitamin c.pho



Standard Table

	Sample ID	Type	Ex	Conc	WL516,2	Wgt.Factor	Comments
1	VITC2PPM	Standard		2.000	0.385	1.000	
2	VITC4PPM	Standard		4.000	0.356	1.000	
3	VITC6PPM	Standard		6.000	0.339	1.000	
4	VITC8PPM	Standard		8.000	0.315	1.000	
5	VITC10PPM	Standard		10.000	0.286	1.000	
6							

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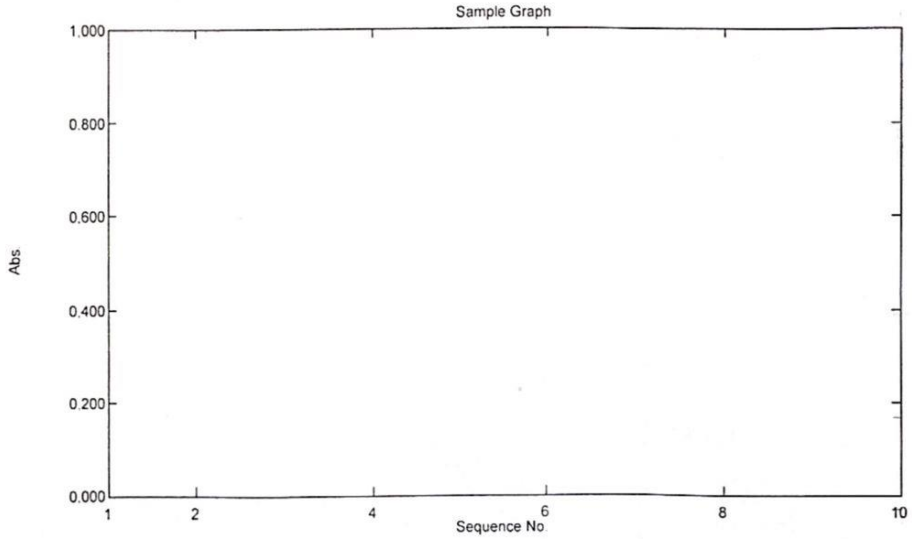
Lampiran 41. Hasil Absorbansi Minyak Biji Labu Kuning

Sample Table Report

24/11/2023 13:09:52

File Name: C:\Users\HP\Documents\Revita Skripsi\MBLK FIKS.pho



Sample Table

	Sample ID	Type	Ex	Conc	WL516,2	Comments
1	MBLK2PPM	Unknown		*****	0.394	
2	MBLK4PPM	Unknown		*****	0.370	
3	MBLK6PPM	Unknown		*****	0.341	
4	MBLK8PPM	Unknown		*****	0.316	
5	MBLK10PPM	Unknown		*****	0.295	
6						

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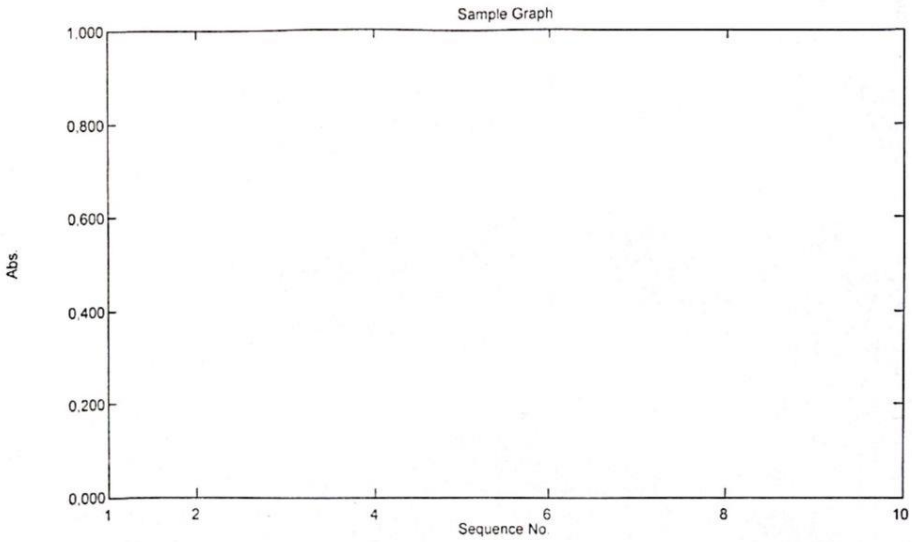
Lampiran 42. Hasil Absorbansi Nanoemulsi Minyak Biji Labu Kuning

Sample Table Report

24/11/2023 13:32:09

File Name: C:\Users\HP\Documents\Revita Skripsi\NANOEMULSIFIKS.pho



Sample Table

	Sample ID	Type	Ex	Conc	WL516,2	Comments
1	NANOEMULSI2PPM	Unknown		*****	0.409	
2	NANOEMULSI4PPM	Unknown		*****	0.376	
3	NANOEMULSI6PPM	Unknown		*****	0.357	
4	NANOEMULSI8PPM	Unknown		*****	0.332	
5	NANOEMULSI10PPM	Unknown		*****	0.309	
6						

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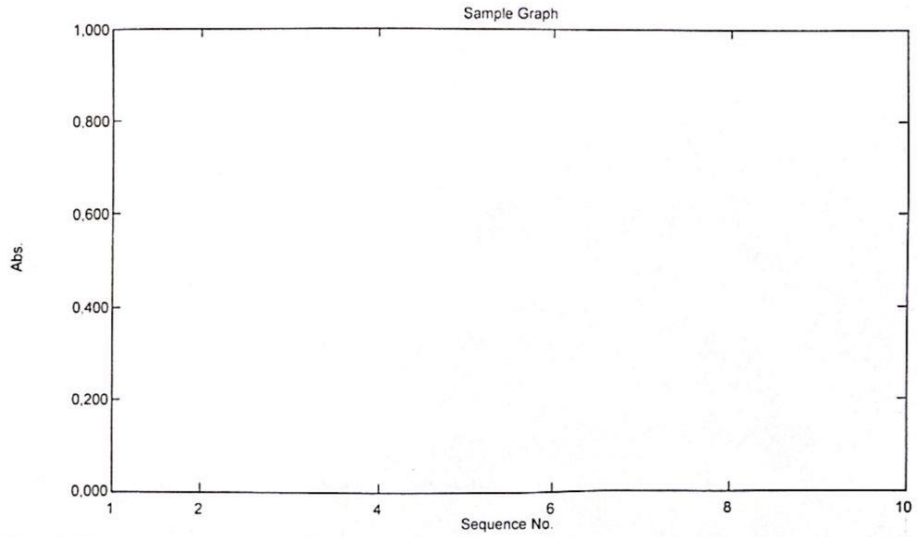
Lampiran 43. Hasil Absorbansi Nanoemulgel MBLK Formula 1 Replikasi 1

Sample Table Report

24/11/2023 13:20:09

File Name: C:\Users\HP\Documents\Revita Skripsi\F1Rep1 fiks.pho



Sample Table

	Sample ID	Type	Ex	Conc	WL516,2	Comments
1	F1R12PPM	Unknown		*****	0.478	
2	F1R14PPM	Unknown		*****	0.452	
3	F1R16PPM	Unknown		*****	0.434	
4	F1R18PPM	Unknown		*****	0.415	
5	F1R110PPM	Unknown		*****	0.397	
6						

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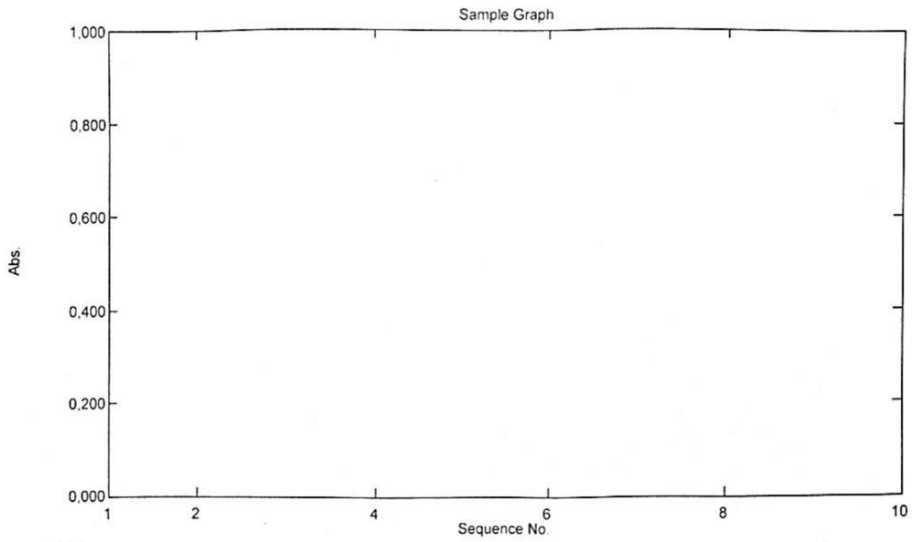
Lampiran 44. Hasil Absorbansi Nanoemulgel MBLK Formula 1 Replikasi 2

Sample Table Report

24/11/2023 11:50:10

File Name: C:\Users\HP\Documents\Revita Skripsi\F1REP2 FIKS.pho



Sample Table

	Sample ID	Type	Ex	Conc	WL516,2	Comments
1	F1R22PPM	Unknown		*****	0.468	
2	F1R24PPM	Unknown		*****	0.449	
3	F1R26PPM	Unknown		*****	0.432	
4	F1R28PPM	Unknown		*****	0.408	
5	F1R210PPM	Unknown		*****	0.400	
6						

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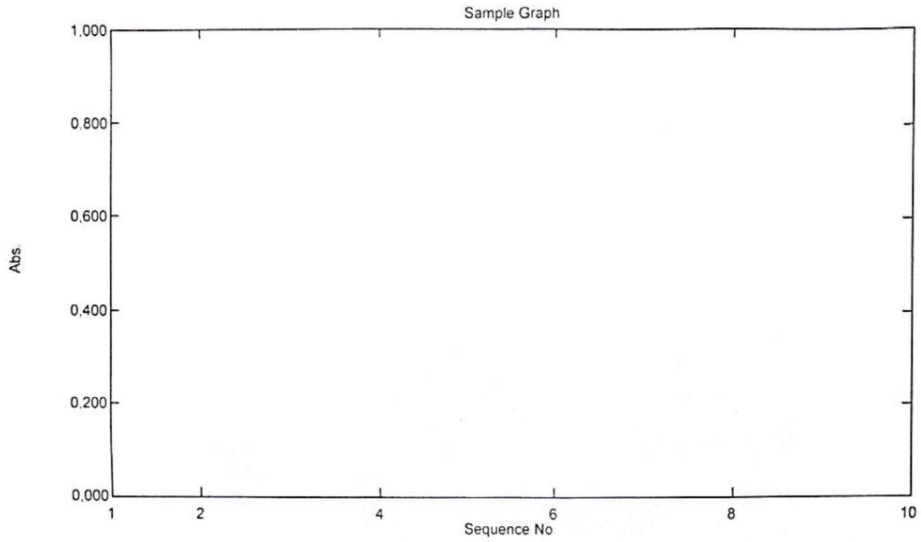
Lampiran 45. Hasil Absorbansi Nanoemulgel MBLK Formula 1 Replikasi 3

Sample Table Report

24/11/2023 12:00:53

File Name: C:\Users\HP\Documents\Revita Skripsi\F1REP3 FIKS.pho



Sample Table

	Sample ID	Type	Ex	Conc	WL516,2	Comments
1	F1R32PPM	Unknown		*****	0.466	
2	F1R34PPM	Unknown		*****	0.442	
3	F1R36PPM	Unknown		*****	0.426	
4	F1R38PPM	Unknown		*****	0.407	
5	F1R310PPM	Unknown		*****	0.393	
6						

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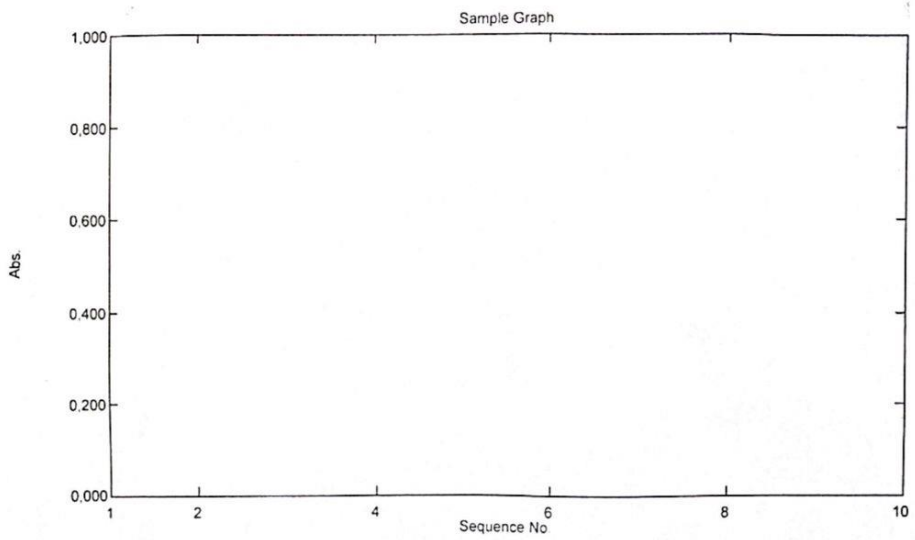
Lampiran 46. Hasil Absorbansi Nanoemulgel MBLK Formula 2 Replikasi 1

Sample Table Report

24/11/2023 12:16:21

File Name: C:\Users\HP\Documents\Revita Skripsi\F2REP1 FIKS.pho



Sample Table

	Sample ID	Type	Ex	Conc	WL516,2	Comments
1	F2R12PPM	Unknown		*****	0.471	
2	F2R14PPM	Unknown		*****	0.440	
3	F2R16PPM	Unknown		*****	0.422	
4	F2R18PPM	Unknown		*****	0.391	
5	F2R110PPM	Unknown		*****	0.366	
6						

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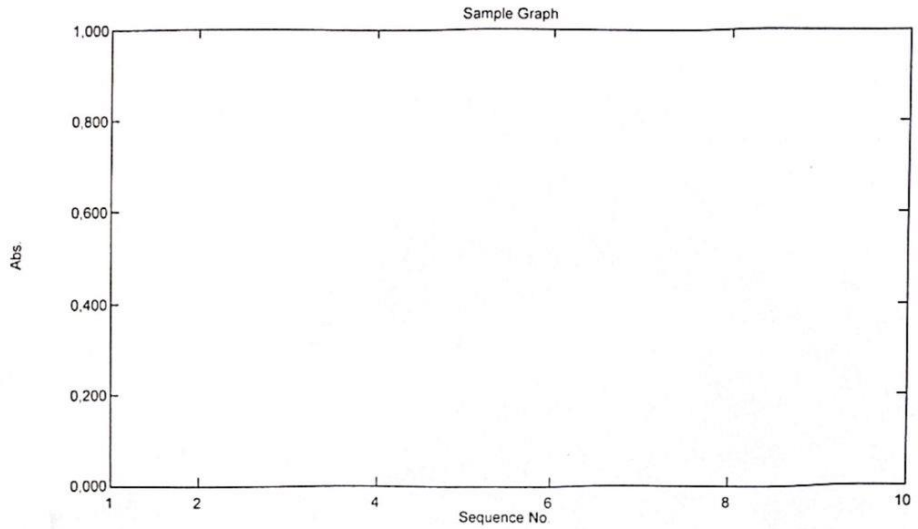
Lampiran 47. Hasil Absorbansi Nanoemulgel MBLK Formula 2 Replikasi 2

Sample Table Report

24/11/2023 12:27:03

File Name: C:\Users\HP\Documents\Revita Skripsi\F2REP2 FIKS.pho



Sample Table

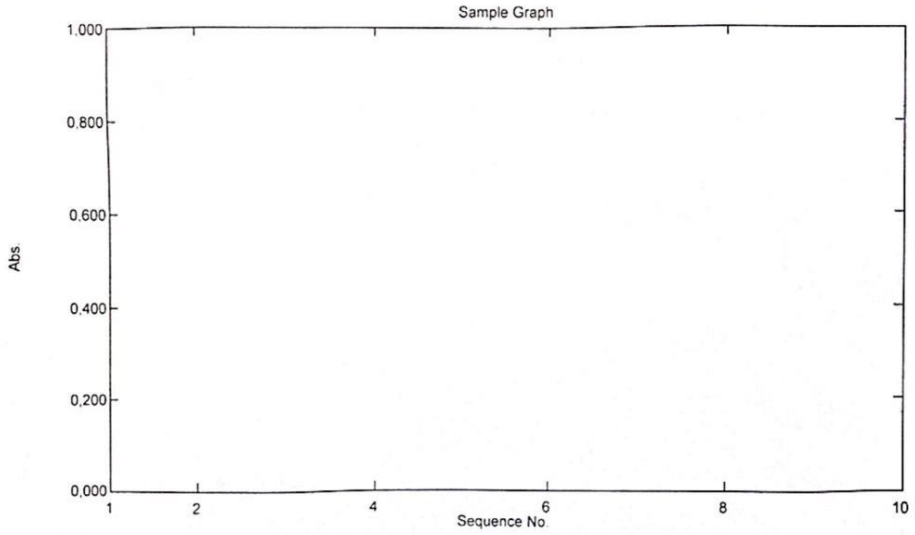
	Sample ID	Type	Ex	Conc	WL516,2	Comments
1	F2R22PPM	Unknown		*****	0.491	
2	F2R24PPM	Unknown		*****	0.463	
3	F2R26PPM	Unknown		*****	0.431	
4	F2R28PPM	Unknown		*****	0.412	
5	F2R210PPM	Unknown		*****	0.389	
6						

Lampiran 48. Hasil Absorbansi Nanoemulgel MBLK Formula 2 Replikasi 3

Sample Table Report

24/11/2023 12:41:43

File Name: C:\Users\HP\Documents\Revita Skripsi\F2REP3 FIKS.pho



Sample Table

	Sample ID	Type	Ex	Conc	WL516,2	Comments
1	F2R32PPM	Unknown		*****	0.491	
2	F2R34PPM	Unknown		*****	0.455	
3	F2R36PPM	Unknown		*****	0.435	
4	F2R38PPM	Unknown		*****	0.409	
5	F2R310PPM	Unknown		*****	0.384	
6						

Lampiran 49. Laporan Bimbingan Skripsi

LAPORAN BIMBINGAN TA/SKRIPSI
UNIVERSITAS NGUDI WALUYO
Jl. Diponegoro No 186 Gedanganak - Ungaran Timur, Kab. Semarang - Jawa Tengah
Email: ngudiwaluyo@unw.ac.id, Telp: Telp. (024) 6925408 & Fax. (024) -6925408

Nomor Induk Mahasiswa :	051201062
Nama Mahasiswa :	**Revita Dian Saputri**
Ketua Program Studi :	**Richa Yuswantina, S.Farm,Apt, M.Si**
Dosen Pembimbing (1) :	**Istianatus Sunnah, S.Farm., Apt., M.Sc**
Dosen Pembimbing (2) :	**Istianatus Sunnah, S.Farm., Apt., M.Sc**
Judul Ta/Skripsi :	**EVALUASI KARAKTERISTIK FISIK DAN AKTIVITAS ANTIOKSIDAN SEDIAAN NANOEMULSI GEL TOPIKAL MINYAK BIJI LABU KUNING (CUCURBITA MOSCHATA SEED OIL) DENGAN METODE DPPH**

Abstrak :

Saat ini, tren kehidupan masyarakat kembali pada gerakan back to nature, termasuk kosmetik. Nano emulsi gel antiaging merupakan salah satu produk kosmetik yang banyak diminati saat ini karema penggunaan bahan alami dalam pengembangan produk kosmetik ramah lingkungan. Sediaan antiaging umum beredar banyak mengandung bahan-bahan kimia yang dapat mengiritasi kulit seperti vitamin C, niasinamid dan retinol. Pengembangan produk antiaging dari bahan alami dan ramah lingkungan telah banyak dilakukan, antaranya lain minyak zaitun, minyak atsiri lada hitam dan ekstrak kulit jeruk manis sebagai bahan aktif untuk formulasi antiaging (Angelia et al., 2022; Astuti
Fitri, 2020; Hakim et al., 2018).
Antioksidan ialah senyawa yang dapat memberikan satu atau dua elektron terhadap radikal bebas, sehingga menghambat atau mencegah senyawa radikal bebas serta aktivitas radikalnya dan mengurangi kerusakan sel (Ira Maya, 2022). Sumber antioksidan dapat ditemukan dalam beberapa bentuk, diantaranya vitamin, mineral, dan senyawa-senyawa metabolit sekunder yang terdapat pada tumbuhan (Jusnita
Tridharma, 2019).
Salah satu tumbuhan yang mengandung antioksidan ditemukan dalam minyak biji labu kuning. Hasil riset Rohman dan Irnawati, (2020) minyak biji labu kuning mengandung asam amino, asam lemak utama, vitamin E (tokoferol), karotenoid, sterol, kriptoxantin, sesquiterpenoid monosiklik dan inhibitor tripsin. Senyawa-senyawa tersebut dapat menghambat peroksida yang berubah menjadi radikal bebas dan mampu mengoksidasi asam lemak tidak jenuh dalam membran sel sehingga merusak membran tersebut dan menjadi agen antiaging. Riset lain mendukung bahwa minyak biji labu kuning menunjukkan aktivitas antioksidan yang baik dengan menunjukkan aktivitas peredaman radikal bebas DPPH dengan IC50 yang cukup rendah. Aktivitas antioksidan diperkuat dengan adanya aktivitas dari antioksidan polifenolat serta kandungan berbagai asam lemak tak jenuh di dalam minyak biji labu kuning tersebut (Abdillah et al., 2018). Riset lain mendukung bahwa kandungan antioksidan dalam minyak biji labu kuning dapat digunakan sebagai bahan kosmetika antiaging dengan pengembangan teknologi (Sharma
Bhat, 2021).
Kosmetika nanoteknologi memiliki keunggulan yang sangat besar. Nanoemulsi dapat digunakan sebagai salah satu sistem penghantaran topikal yang menarik untuk sediaan kosmetik, karena dapat menghambat pembentukan creaming, sedimentasi dan koalesen yang biasa dilihat pada sistem makroemulsi (Tirmiara, Reveny, et al., 2018). Keunggulan lain dari sediaan nanoemulsi adalah kemapuannya dalam menembus kulist dengan sangat baik, sehingga nanoemulsi cocok sebagai sistem penghantaran zat yang bersifat lipofilik, termasuk adalah minyak nabati. Nanoemulsi stabil secara termodinamika, jernih, transparan, dan sangat larut (Firmansyah et al., 2022). Kombinasi dari surfaktan dan kosurfaktan dapat meningkatkan stabilitas nanoemulsi dan memperkecil ukuran partikel sehingga dapat meningkatkan penetrasi bahan aktif ke dalam kulit (Tirmiara, Arianto, et al., 2018).
Nanoemulsi dapat dibentuk dengan berbagai formulasi seperti krim, gel, semprotan dan busa. Dalam penelitian ini akan dibuat sediaan nanoemulsi gel minyak biji labu kuning sebagai antiaging. Formulasi Gel memberikan sifat aplikasi dan stabilitas yang lebih baik dibandingkan sediaan lainnya (Tirmiara, Reveny, et al., 2018).
Berdasarkan latar belakang tersebut penelitian ini berfokus pada evaluasi karakteristik fisik nanoemulsi gel minyak biji labu kuning, seperti uji organoleptik, uji pH, uji viskositas, uji pengukuran ukuran partikel nanoemulsi gel dan uji sentrifugasi. Selain itu akan di uji aktivitas antioksidan menggunakan metode 1,1-difenil-2-pikrihidazil (DPPH) untuk mengukur daya antioksidan dalam penangkapan radikal bebas.

Tanggal Pengajuan : **20/10/2023 22:28:01**

Tanggal Acc Judul : 31/10/2023 09:49:34

Tanggal Selesai Proposal : 14/01/2024 17:25:06

Tanggal Selesai TA/Skripsi : -

No	Hari/Tgl	Keterangan	Dosen/Mhs
BIMBINGAN PROPOSAL			
1	Jumat,03/11/2023 05:40:17	17 SEptember 2023 Bimbingan Penulisan naskah skripsi	Istianatus Sunnah, S.Farm., Apt., M.Sc
2	Jumat,03/11/2023 05:40:39	24 September 2023 bimbingan tema dan judul	Istianatus Sunnah, S.Farm., Apt., M.Sc
3	Jumat,03/11/2023 05:41:41	2 November 2023 Bimbangan bab 1-3 Latar belakang perbaiki karena belum sesuai Kerangkan konsep perbaiki bab 3 prosedur kerja perbaiki	Istianatus Sunnah, S.Farm., Apt., M.Sc
4	Minggu,14/01/2024 17:24:56	6 november 2023 Acc proposal, masuk penelitian di lab	Istianatus Sunnah, S.Farm., Apt., M.Sc
BIMBINGAN TA/SKRIPSI			
5	Minggu,14/01/2024 17:28:44	8 November 2023 Konsul hasil ukuran partikel partikel masih besar, ubah formula https://drive.google.com/drive/folders/1DHYkpn42EBVKJBQaG0ueMbyPO-SWLcaK?usp=sharing	Istianatus Sunnah, S.Farm., Apt., M.Sc
6	Minggu,14/01/2024 17:33:29	22 nOVEMBER 2023 KONSUL TRIAL FORMULA 1 iC 50 21. R 0,988 CEK ULANG HASIL DENGAN KONS 12-20 NILAI R 0,99 https://drive.google.com/drive/folders/1QzWNwsg3JQr9r9tf-x7i2q2Bt6ddGrak?usp=sharing	Istianatus Sunnah, S.Farm., Apt., M.Sc
7	Minggu,14/01/2024 17:35:56	1 Januari 2024 Konsul bab 1-5 https://drive.google.com/drive/folders/15zJUMIIfU9YvfaK015DI312ooKIO_33w?usp=sharing	Istianatus Sunnah, S.Farm., Apt., M.Sc
8	Selasa,16/01/2024 06:55:27	masih banyak typo, pembahasan masih banyk yang salah, hanya membahas data tidak di sertai artikel perbaiki dari bab cover smpai lampiran https://drive.google.com/drive/folders/1DwzeB9y3abLcLDdmTtYB0Vah1uB2m1Vo?usp=sharing	Istianatus Sunnah, S.Farm., Apt., M.Sc

9	Jumat,19/01/2024 17:20:23	revisi terakhir acc daftar ujian skripsi	Istianatus Sunnah, S.Farm., Apt., M.Sc
10	Senin,29/01/2024 13:04:43	bimbingan penyusunan revisi artikel	Istianatus Sunnah, S.Farm., Apt., M.Sc

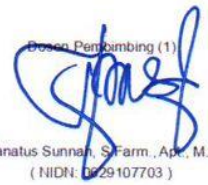
Mengetahui,
Ketua Program Studi

Richa Yuswantina, S.Farm,Apt, M.Si
(NIDN: 0630038702)

Semarang , 19 Januari 2024

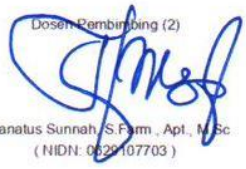
Revita Dian Saputri
(NIM: 051201062)

Dosen Pembimbing (1)



Istianatus Sunnah, S.Farm., Apt., M.Sc
(NIDN: 0629107703)

Dosen Pembimbing (2)



Istianatus Sunnah, S.Farm., Apt., M.Sc
(NIDN: 0629107703)