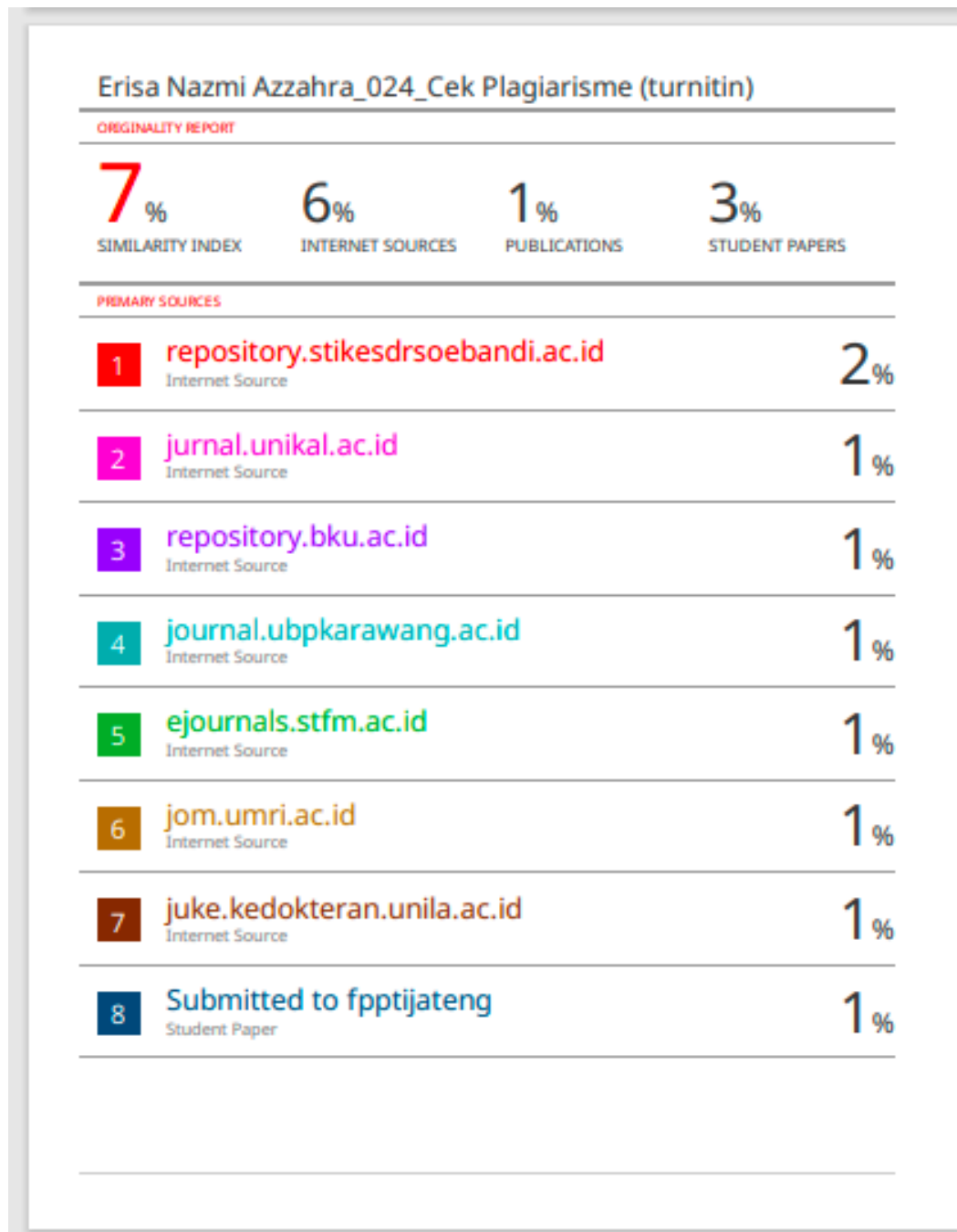


LAMPIRAN

Lampiran 1 Bukti cek plagiarisme



Exclude quotes On

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Lampiran 2 CoA (Certificate of Analysis) Bahan Aktif dan Ekspien

- Asiaticoside

Room 2-1702, Zhongqing Business Building, 42 Gaoxin 6th Road, Xi'an, 710065, China
Tel: +86 29 8956 9867 [http:// www.faitury.com](http://www.faitury.com)



Xi'an Faitury Bio-Tech Co., Ltd.
西安信合世纪生物科技有限公司
Certificate of Analysis

Certificate No: FT20220915AC

Product Name:	Asiaticoside	CAS	16830-15-2
Batch Number:	FT20220914	Manufacture Date:	Sep. 13, 2022
Batch Quantity:	80 KG	Expiry Date:	Sep. 12, 2024
Reference	In House	Report Date	Sep. 15, 2022
Source	Xi'an	Country	China
Item	Specification	Result	Test Method
Assay	≥ 80%	81.27%	HPLC
Physical Characteristics			
Appearance	Off-White to Yellow Powder	Conform	Visual
Moisture	≤ 5.0%	1.93%	GB5009.3-2016
Odor & Taste	Characteristic	Conform	Organoleptic
Ash content	≤ 2.0%	0.37%	GB 5009.4-2016
Heavy metals			
Total Heavy Metals	≤10 PPM	Conform	AAS
As	≤0.5 PPM	Conform	AAS (GB/T 5009.11)
Hg	≤0.05 PPM	Conform	AAS (GB/T 5009.17)
Pb	≤0.5 PPM	Conform	AAS (GB 5009.12)
Cd	≤0.3 PPM	Conform	AAS (GB/T 5009.15)
Microbiological Tests			
Total Bacteria Count	≤ 3000cfu/g	Conform	GB 7101-2003
Total Yeast & Mold	≤ 100cfu/g	Conform	GB 4789.15-2016
E.Coli	Negative	Negative	GB/T 4789.38-2008
Salmonella	Negative	Negative	GB 4789.4-2016
Conclusion:	Meet the specification of the In-House Standard.		
Reported By	Jupeng Zhang	Approved by	Lily Lu
Storage Condition:	Preserve in tight containers at controlled room temperature.		

Room 2-1702, Zhongqing Business Building, 42 Gaoxin 6th Road, Xi'an, 710065, China
Tel: +86 29 8956 9867 [http:// www.faitury.com](http://www.faitury.com)



- Bakuchiol



Shandong Natural Micron Pharm Tech Co., LTD

Tel: 0538-5352227/5352228
www.nmpharmtech.com

Certificate of Analysis

Product Name	Bakuchiol CAS: 10309-37-2		
Source	Psoralea Corylifolia L		
Plant part	Seeds		
Batch Number	NM20230627	MFG Date	2023-06-27
Batch Quantity	120KG	Expiry Date	2025-06-26

ITEMS	SPECIFICATION	RESULTS
Appearance	Brownish red viscous liquid	Conform
Identification	Positive	Positive
Purity (HPLC)	≥98%	99.24%
Assay (HPLC)	≥98%	98.70%
Psoralen		48.1ppm
Angelicin	≤100ppm	46.7ppm
Solvent Residues	≤5000ppm	Conform
water content	≤2%	0.53%
Heavy metals		
Heavy Metals	≤10ppm	Conform
Lead	≤2ppm	Conform
Arsenic	≤1ppm	Conform
Mercury	≤0.1ppm	Conform
Cadmium	≤1ppm	Conform
Microbiological		
Total Plate Count	<1000cfu/g	Conform
Yeast& Mold	<100cfu/g	Conform
E.Coli	Negative	Conform
Salmonella	Negative	Conform
Staphylococcus	Negative	Conform
Conclusion: Conform with specification.		
Statement: Non-Irradiated, Non-Animal Tested, Non-GMO, Non-Allergen, Vegan Suitable and Gluten Free		

Storage: Store in Dry and Ventilated place with the Room Temperature. Preserved in Original Tight-Closed containers. Keep Away from Light and Heating.

Analysis Date: 2023-06-27

Approver: Cheng Yuan

Tester: Lin Xin

- Glycerine

CERTIFICATE OF ANALYSIS

To : PT. Asa Pundi
 Subject : GLYSERINE 99.5%
 Batch Number : MAC 102803/X/19
 Date of Analysis : 25 Oktober 2019
 Date of Delivery : 28 Oktober 2019



M A - G A

Parameter	Unit	Acceptance Criteria	Result
Appearance		Clear	Clear
Odour		Conform to standard	Conform to standard
Density	g/mL	1.200 - 1.300	1.23
Content	%	≥ 99.5	99.65

- DMDM Hydanthoin



The Gold Standard for Performance

Troy Slam Company, Limited

Customer Order Number: 2310947

Quantity & Weight: 358 X 18.0 Kg

Remarks: Expiration Date is 06.Jun.2025

CERTIFICATE OF ANALYSIS

Product: TROYCARE BD55

Lot 23061748SK

Characteristics	Specification	Actual Lot Analysis	Method
Total Hydantoins, %	55 Min	56.1	QC02D-256
Color, APHA	10 Max	7	ASTM D1209
pH Value	6.5 - 7.5	7.42	Troy 0007

Date of Manufacture: 07-Jun-2023

This Certificate is generated from a computerized system by the QC Manager. Authorized signature is not required.

F804-01

- Carbopol

COREL PHARMA CHEM

THOL ROAD, KADI - 382715, DIST. MEHSANA, GUJARAT (INDIA)
PHONE: + 91 8000880044/55 E-MAIL: corel@corelpharmachem.com WEB SITE: www.corelpharmachem.com

CERTIFICATE OF ANALYSIS

NAME OF PRODUCT: **ACRYPOL 940**
(Carbomer - 940)

BATCH NO: 11022078 DATE: 12/01/2023

MFG. DATE: JAN.-2023 A.R. NO.: CRL/FP/078/22-23

RETEST DATE: DEC.-2025

The supply as detailed above has been tested and found to meet the requirement as below on sample basis.

TEST	SPECIFICATION*	RESULTS
DESCRIPTION	White, fluffy, hygroscopic powder having a slight, characteristic odor. The pH of 1 in 100 dispersion in water is about 3.	White fluffy, hygroscopic powder having a slight, characteristic odor. The pH of 1 in 100 dispersion in water is about 3.
SOLUBILITY	When neutralize with alkali hydroxide or amine it dissolve in water, alcohol and glycerin	Complies
IDENTIFICATION A	Spectroscopic Identification Test	Complies
IDENTIFICATION B	1) 10 mg/ml dispersion with Thymol Blue - Orange Color	Orange color produced
	2) 10 mg/ml dispersion with cresol Red - Yellow Color	Yellow color produced
IDENTIFICATION C	Very viscous gel is produced	Very viscous gel is produced
LIMIT OF BENZENE (%)	NMT 0.5	Not detected
LIMIT OF ACRYLIC ACID (%)	NMT 0.25	0.17%
LOSS ON DRYING (%)	NMT 2.0	0.71%
VISCOSITY (mPa.s) (0.5% mucilage in water, 25 °C pH 7.3-7.8, spindle # 7, rpm 20)	40,000 to 60,000	50,000 mPa.s
ASSAY FOR CARBOXYLIC ACID CONTENT (%)	56.0 to 68.0	57.68%

* Specification as per finished product specification [QC/WI/335(07)]. Meeting requirement of USP/NF (Carbomer 940)

TESTED BY
Mansi Patel
MANSI PATEL
(Q.C. Chemist)



AUTHORIZED BY
Pragnesh Prajapati
PRAGNESH PRAJAPATI
(In-charge QC)

The Next Generation Polymer Technologist

OFFICE: COREL HOUSE, NR. SHAYONA MARBLE, OPP BHAGWAT PETROL PUMP, SG HIGHWAY, GOTA, AHMEDABAD-382481, INDIA. TELE: + 91-8000880044/55

ACRYCOAT • COLORCOAT • ACRYPOL • KYRON • ACRYCOL • ACRYFLOW • ACRYSET

- Propilenglikol



XY-OTC-04.01.03-F09

Dongying Hi-tech Spring Chemical Industry Co.,Ltd

Certificate of Analysis

Product name: Propylene glycol USP grade

Production Date: 2023/8/21

Batch No.: YF01230821

Expiry Date: 2025/8/20

Items	Unit	Specification	Results
Identification	--	passed	passed
Appearance	--	Colorless clear viscous liquid	Colorless clear viscous liquid
Assay	%	99.80min	99.89
EG	%	max 0.1%	0.016%
DEG	%	max 0.1%	0.015%
Residue on Ignition	mg	2.5max	0.7
Chloride	w/%	0.007max	<0.007
Sulfate	w/%	0.006max	<0.006
Heavy metals	ppm	5max	<5
Specific Gravity(25°C/25°C)	--	1.035-1.037	1.036
Acidity(0.1N NaOH)	mL	0.05max	0.01
Moisture	w/%	0.10max	0.069
Fe	ppm	0.1max	0.006
Colouring (Pt-Co)	Hazen	10max	<5
IBP	°C	184min	186
DP	°C	189max	187

End of Test Data

For Further questions,please contact us:
Phone:+864008003828
Checker: Liu Xiaoqing
Assessor: Qin Lili

Storage conditions: Keep the product in a windy warehouse. Light protection. Sealed storage. Avoiding moisture. The temperature is not more than 40° C, the humidity does not exceed 90%.

Dongying Hi-tech Spring Chemical Industry Co.,Ltd
No.23,Zoucheng Road, Dongying High-Tech Industrial Development Zone ,Shandong, China.
Post Code:257100

Submitted by Q.C dept

QUALITY INSPECTION DEPT

Foreign Trade Department

Tel:+864008003828

www.hi-techspring.com

Email:htcxy@hi-techspring.com

- TEA (*triethanolamine*)



PETRONAS

CERTIFICATE OF ANALYSIS

Page 1 of 1

TRIETHANOLAMINE 99% 228 KG STEEL DRUM

Carrier/Vehicle ID	E/SU 2215585	Material ID	72000064
Customer P.O. No.	5210018468	Customer No.	8010000437
Sales Order No.	100320191	Batch No.	38059H
Delivery Qty	80.000	Delivery No.	500582726
Delivery Unit	DR	Inspection Dt.	21 JUL 2022
		Expire Dt.	21 JUL 2025

NOTE: THE TEST CHARACTERISTICS AND THEIR UNITS, TOLERANCES AND RESULTS LISTED BELOW WILL VARY DEPENDING ON THE BUSINESS, CUSTOMER & MATERIAL REQUIREMENTS.

Test Characteristics	Results	Unit	Tolerance Limits	Method
TRIETHANOLAMINE	99.9	WTP	99.0 - 100.0	1B-17A-0.1
MONOETHANOLAMINE	0.0	WTP	0.0 - 0.5	1B-17A-0.1
DIETHANOLAMINE	0.01	WTP	0.0 - 0.5	1B-17A-0.1
WATER	0.01	WTP	0.00 - 0.2	1B-17A-0.2
COLOR	2	PTCO	0 - 15	1B-17A-0
APPEARANCE	PASS: Clear	-	-	1B-17A-0

This product meets the Product Sales Specification. This result is based on the sample being tested.

Marketed by: PETRONAS CHEMICALS MARKETING (LABUAN) LTD (LL08329)

Lampiran 3 Hasil evaluasi Optimasi

Uji Organoleptik Terhadap Optimasi Basis



Uji pH Terhadap Optimasi Basis



Uji Daya Sebar Terhadap Optimasi Basis



Uji Viskositas Terhadap Optimasi Basis



Lampiran 4 Hasil Evaluasi Reproduksi Gel

Uji Organoleptik



Uji Homogenitas



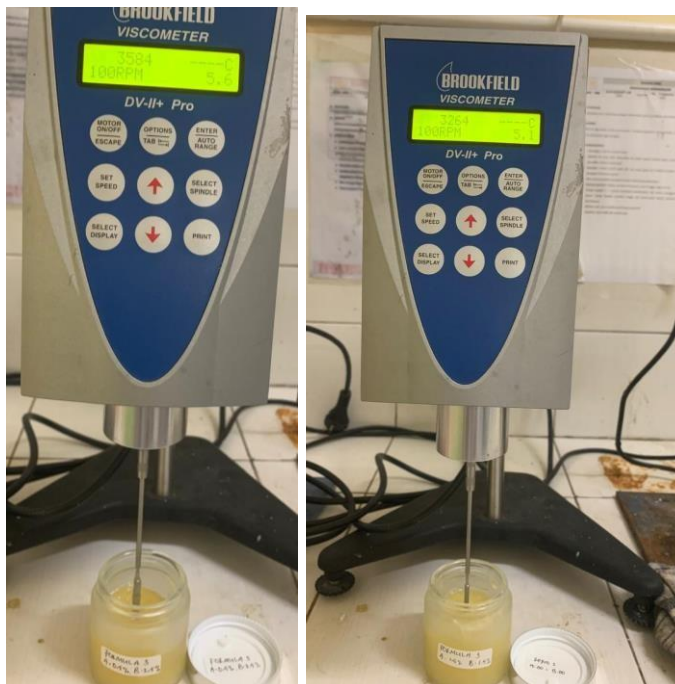
Uji pH



Uji Daya Sebar

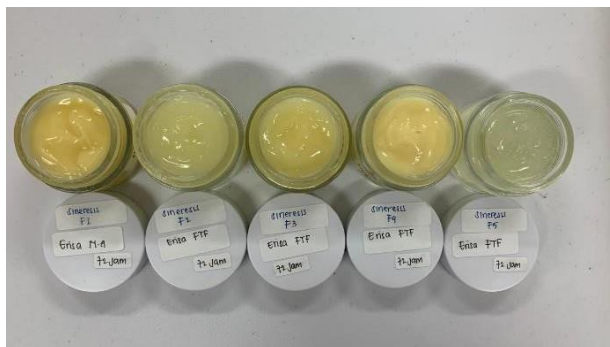


Uji Viskositas



Lampiran 5 Hasil Uji Sineresis

Formula	massa gel	massa awal (massa wadah + massa gel) (g)	berat akhir (gram)			Nilai sineresis	SD
			24 jam	48 Jam	72 Jam		
Formula							
1	50	137,13	136,8	136,82	135,71	136,44	0,52
Formula							
2	50	137,13	136,89	136,78	135,66	136,44	0,56
Formula							
3	50	137,13	137,12	136,83	135,79	136,58	0,57
Formula							
4	50	137,13	136,87	135,79	135,66	136,11	0,54
Formula							
5	50	137,13	135,8	135,75	135,66	135,74	0,06



Lampiran 6 Hasil Uji Sineresis Beserta perhitungannya

Formula	Massa Gel (g)	Massa Awal [wadah kosong + massa gel (g)]	Massa Akhir	Hasil Sineresis (%)
1	50	137,13	135,86	0,9
2	50	137,13	135,11	1,4
3	50	137,13	137,06	0,05
4	50	137,13	135,93	0,8
5	50	137,13	135,89	0,9

Keterangan :

Rumus perhitungan (Supriadi and Hanifah Hardiansyah 2020)

- % Sineresis F1 = $\frac{137,13-135,86}{137,13} \times 100\% = 0,9\%$
- % Sineresis F2 = $\frac{137,13-135,11}{137,13} \times 100\% = 1,5\%$
- % sineresis F3 = $\frac{137,13-137,06}{137,13} \times 100\% = 0,05$

- % Sineresis F4 = $\frac{137,13-135,93}{135,13} \times 100 \% = 0,8\%$
- % Sineresis F5 = $\frac{137,13-135,89}{137,13} \times 100\% = 0,9\%$

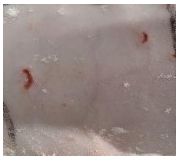
Lampiran 7 Hasil Uji Iritasi Terhadap Punggung Kelinci

Waktu	EFEK iritasi	Kelompok Uji	
		Basis	F3
c Jam Ke- 48	Eritema	0	1
	Udema	0	0
	Eritema	0	0
	Udema	0	0
Jam Ke- 72	Eritema	0	0
	Udema	0	0
Indeks Iritasi			1
Kesimpulan			Sangat Sedikit iritasi

Keterangan :

Perhitungan iritasi : $\frac{1-0}{1} = 1$

waktu	Efek iritasi	Kelompok uji dan gambar		Keterangan
		Basis	F1	
Jam Ke- 24	Eritema			Sangat sedikit iritasi
	Udema	-	-	Tidak udema
Jam Ke- 48	Eritema			Tidak terjadi iritasi

	Udema	-	-	Tidak udema
Jam Ke- 72	Eritema			Tidak terjadi iritasi
	Udema	-	-	Tidak udema

Lampiran 8 Skor rentang Edema (Ermawati 2018)

Reaksi Kulit	Skor
Tanpa edema	0
Sangat Sedikit Edema (hampir tidak terlihat	1
Edema Tepi Berbatas Jelas	2
Edma Sedang (tepi naik ± 1 mm	3
Edema Berat (Tepi naik lebih dari 1mm dan meluas keluar dari daerah pejanan	4

Lampiran 9 Skor Rentang Eritema (Ermawati 2018)

Reaksi Kulit	Skor
Tanpa Eritema	0
sangat sedikit iritasi (hampir tidak terlihat	1
Edema Tepi Berbatas Jelas	2
Edma Sedang (tepi naik ± 1 mm	3

Edema Berat (Tepi naik lebih dari 1mm dan meluas keluar dari daerah pejanan

4

Lampiran 10 Hasil Statistik Evaluasi Reprodusibilitas & Uji Sineresis Sediaan Gel

3. Uji Reprodusibilitas

Uji pH

Tests of Normality							
	Bacth	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
hasil	Bacth 1	.337	3	.	.855	3	.253
	batch 2	.304	3	.	.907	3	.407
	3	.253	3	.	.964	3	.637

a. Lilliefors Significance Correction

Descriptives

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Bacth 1	3	5.8433	.03786	.02186	5.7493	5.9374	5.80	5.87
batch 2	3	5.8533	.04726	.02728	5.7359	5.9707	5.80	5.89
3	3	5.8667	.01528	.00882	5.8287	5.9046	5.85	5.88
Total	9	5.8544	.03283	.01094	5.8292	5.8797	5.80	5.89

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
hasil	Based on Mean	2.536	2	6	.159
	Based on Median	.384	2	6	.697
	Based on Median and with adjusted df	.384	2	4.279	.703
	Based on trimmed mean	2.229	2	6	.189

ANOVA

hasil

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.001	2	.000	.316	.740
Within Groups	.008	6	.001		
Total	.009	8			

Uji Daya Sebar

Tests of Normality

	Bacth	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
hasil	Bacth 1	.253	3	.	.964	3	.637
	batch 2	.219	3	.	.987	3	.780
	3	.292	3	.	.923	3	.463

a. Lilliefors Significance Correction

Descriptives

hasil

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Bacth 1	3	5.8133	.01528	.00882	5.7754	5.8513	5.80	5.83
batch 2	3	5.8233	.02517	.01453	5.7608	5.8858	5.80	5.85
3	3	5.8433	.04163	.02404	5.7399	5.9468	5.81	5.89
Total	9	5.8267	.02872	.00957	5.8046	5.8487	5.80	5.89

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
hasil	Based on Mean	1.909	2	6	.228
	Based on Median	.500	2	6	.630
	Based on Median and with adjusted df	.500	2	3.430	.645
	Based on trimmed mean	1.766	2	6	.249

ANOVA

hasil

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.001	2	.001	.808	.489
Within Groups	.005	6	.001		
Total	.007	8			

Uji Viskositas

Tests of Normality

	Bacth	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
hasil	Bacth 1	.204	3	.	.993	3	.843
	batch 2	.253	3	.	.964	3	.637
	3	.219	3	.	.987	3	.780

a. Lilliefors Significance Correction

Descriptives

hasil

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Bacth 1	3	3583.6667	3.51188	2.02759	3574.9427	3592.3907	3580.00	3587.00
batch 2	3	3586.3333	1.52753	.88192	3582.5388	3590.1279	3585.00	3588.00
3	3	3587.6667	2.51661	1.45297	3581.4151	3593.9183	3585.00	3590.00
Total	9	3585.8889	2.89156	.96385	3583.6662	3588.1115	3580.00	3590.00

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
hasil	Based on Mean	.735	2	6	.518
	Based on Median	.522	2	6	.618
	Based on Median and with adjusted df	.522	2	4.661	.624
	Based on trimmed mean	.721	2	6	.524

ANOVA

hasil

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	24.889	2	12.444	1.778	.248
Within Groups	42.000	6	7.000		
Total	66.889	8			

Uji Sineresis

Tests of Normality

	Formula	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Nilai Sineresis	Formula A	.321	3	.	.881	3	.328
	Formula B	.178	3	.	.999	3	.952
	Formula C	.345	3	.	.839	3	.213
	Formula D	.229	3	.	.981	3	.739
	Formula E	.241	3	.	.974	3	.688

a. Lilliefors Significance Correction

Descriptives

Nilai Sineresis

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Formula A	3	13677.67	5.859	3.383	13663.11	13692.22	13671	13682
Formula B	3	13577.67	11.504	6.642	13549.09	13606.24	13566	13589
Formula C	3	13691.33	18.009	10.398	13646.60	13736.07	13679	13712
Formula D	3	13677.33	10.599	6.119	13651.00	13703.66	13666	13687
Formula E	3	13573.67	7.095	4.096	13556.04	13591.29	13566	13580
Total	15	13639.53	55.100	14.227	13609.02	13670.05	13566	13712

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Nilai Sineresis	Based on Mean	1.644	4	10	.238
	Based on Median	.326	4	10	.854
	Based on Median and with adjusted df	.326	4	4.324	.849
	Based on trimmed mean	1.498	4	10	.275

ANOVA

Nilai Sineresis

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	41196.400	4	10299.100	78.779	.000
Within Groups	1307.333	10	130.733		
Total	42503.733	14			

Multiple Comparisons

Dependent Variable: Nilai Sineresis

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula A	Formula B	100.000*	9.336	.000	69.28	130.72
	Formula C	-13.667	9.336	.605	-44.39	17.06
	Formula D	.333	9.336	1.000	-30.39	31.06
	Formula E	104.000*	9.336	.000	73.28	134.72
Formula B	Formula A	-100.000*	9.336	.000	-130.72	-69.28
	Formula C	-113.667*	9.336	.000	-144.39	-82.94
	Formula D	-99.667*	9.336	.000	-130.39	-68.94
	Formula E	4.000	9.336	.992	-26.72	34.72
Formula C	Formula A	13.667	9.336	.605	-17.06	44.39
	Formula B	113.667*	9.336	.000	82.94	144.39
	Formula D	14.000	9.336	.585	-16.72	44.72
	Formula E	117.667*	9.336	.000	86.94	148.39
Formula D	Formula A	-.333	9.336	1.000	-31.06	30.39
	Formula B	99.667*	9.336	.000	68.94	130.39
	Formula C	-14.000	9.336	.585	-44.72	16.72
	Formula E	103.667*	9.336	.000	72.94	134.39

Formula E	Formula A	-104.000*	9.336	.000	-134.72	-73.28
	Formula B	-4.000	9.336	.992	-34.72	26.72
	Formula C	-117.667*	9.336	.000	-148.39	-86.94
	Formula D	-103.667*	9.336	.000	-134.39	-72.94

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

Nilai Sineresis

Tukey HSD^a

Formula	N	Subset for alpha = 0.05	
		1	2
Formula E	3	13573.67	
Formula B	3	13577.67	
Formula D	3		13677.33
Formula A	3		13677.67
Formula C	3		13691.33
Sig.		.992	.585

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Uji pH Terhadap sediaan Gel

Tests of Normality							
	Formula	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil	Formula 1	.204	3	.	.993	3	.843
	Formula 2	.328	3	.	.871	3	.298
	Formula 3	.343	3	.	.844	3	.225
	Formula 4	.314	3	.	.893	3	.363
	Formula 5	.328	3	.	.871	3	.298

a. Lilliefors Significance Correction

Descriptives

Hasil

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula 1	3	5.3767	.07024	.04055	5.2022	
Formula 2	3	5.3233	.03215	.01856	5.2435	
Formula 3	3	6.5867	.25580	.14769	5.9512	
Formula 4	3	6.1500	.05292	.03055	6.0186	
Formula 5	3	5.4633	.03215	.01856	5.3835	
Total	15	5.7800	.52968	.13676	5.4867	

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Hasil	Based on Mean	.436	4	10	.780
	Based on Median	.133	4	10	.966
	Based on Median and with adjusted df	.133	4	7.805	.965
	Based on trimmed mean	.409	4	10	.799

ANOVA

Hasil

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.834	4	.959	152.961	.000
Within Groups	.063	10	.006		
Total	3.897	14			

Multiple Comparisons

Dependent Variable: Hasil

			Mean Difference			95% Confidence Interval	
	(I) Formula	(J) Formula	(I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
Games-Howell	Formula 1	Formula 2	.11667	.04922	.289	-.1053	.3386
		Formula 3	-1.10000*	.06625	.001	-1.4148	-.7852
		Formula 4	-.84667*	.06667	.002	-1.1645	-.5289
		Formula 5	.01000	.05850	1.000	-.2543	.2743
	Formula 2	Formula 1	-.11667	.04922	.289	-.3386	.1053
		Formula 3	-1.21667*	.06316	.001	-1.5358	-.8975
		Formula 4	-.96333*	.06360	.002	-1.2859	-.6408
		Formula 5	-.10667	.05497	.431	-.3655	.1521
	Formula 3	Formula 1	1.10000*	.06625	.001	.7852	1.4148
		Formula 2	1.21667*	.06316	.001	.8975	1.5358
		Formula 4	.25333	.07753	.128	-.0914	.5980
		Formula 5	1.11000*	.07063	.001	.7898	1.4302
	Formula 4	Formula 1	.84667*	.06667	.002	.5289	1.1645
		Formula 2	.96333*	.06360	.002	.6408	1.2859
		Formula 3	-.25333	.07753	.128	-.5980	.0914
		Formula 5	.85667*	.07102	.002	.5341	1.1792
	Formula 5	Formula 1	-.01000	.05850	1.000	-.2743	.2543
		Formula 2	.10667	.05497	.431	-.1521	.3655
		Formula 3	-1.11000*	.07063	.001	-1.4302	-.7898
		Formula 4	-.85667*	.07102	.002	-1.1792	-.5341

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

Hasil

			Subset for alpha = 0.05		
	Formula	N	1	2	3
Tukey B ^a	Formula 2	3	5.2567		
	Formula 5	3	5.3633		
	Formula 1	3	5.3733		
	Formula 4	3		6.2200	
	Formula 3	3			6.4733

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

UJI DAYA SEBAR TERHADAP SEDIAAN GEL

Tests of Normality							
	Formula_Sedian_Gel	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Uji_Daya_Sebara	Formula 1	.253	3	.	.964	3	.637
	Formula 2	.269	3	.	.949	3	.567
	Formula 3	.204	3	.	.993	3	.843
	Formula 4	.314	3	.	.893	3	.363
	Formula 5	.191	3	.	.997	3	.900

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Hasil_Uji_Daya_Sebara	Based on Mean	1.795	4	10	.206
	Based on Median	1.098	4	10	.409
	Based on Median and with adjusted df	1.098	4	5.344	.444
	Based on trimmed mean	1.751	4	10	.215

ANOVA

Hasil_Uji_Daya_Sebara

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.909	4	1.227	322.406	.000
Within Groups	.038	10	.004		
Total	4.947	14			

Hasil_Uji_Daya_Sebar

		Subset for alpha = 0.05				
	Formula_Sedian_Gel	N	1	2	3	4
Tukey B ^a	Formula 4	3	5.2100			
	Formula 5	3		5.5567		
	Formula 2	3			6.3433	
	Formula 1	3			6.4167	
	Formula 3	3				6.7333

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

UJI VISKOSITAS TERHADAP SEDIAAN GEL

Tests of Normality

	Formula_Sedian_Gel	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Uji_Viskositas	Formula 1	.276	3	.	.942	3	.537
	Formula 2	.359	3	.	.810	3	.138
	Formula 3	.345	3	.	.840	3	.214
	Formula 4	.252	3	.	.966	3	.643
	Formula 5	.253	3	.	.964	3	.637

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Hasil_Uji_Viskositas	Based on Mean	1.989	4	10	.172
	Based on Median	.664	4	10	.631
	Based on Median and with adjusted df	.664	4	6.248	.639
	Based on trimmed mean	1.862	4	10	.194

ANOVA

Hasil_Uji_Viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	23.187	4	5.797	256.950	.000
Within Groups	.226	10	.023		
Total	23.413	14			

Hasil_Uji_Viskositas

Tukey B^a

		Subset for alpha = 0.05		
Formula_Sedian_Gel	N	1	2	3
Formula 1	3	3.32800		
Formula 2	3	3.59100		
Formula 4	3		5.61933	
Formula 3	3		5.81100	
Formula 5	3			6.38600

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Descriptives

Hasil_Uji_Viskositas

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Formula 1	3	3.32800	.230755	.133227	2.75477	3.90123	3.136	3.584
Formula 2	3	3.59100	.055570	.032083	3.45296	3.72904	3.555	3.655
Formula 3	3	5.81100	.067104	.038743	5.64430	5.97770	5.765	5.888
Formula 4	3	5.61933	.166392	.096067	5.20599	6.03267	5.438	5.765
Formula 5	3	6.38600	.155808	.089956	5.99895	6.77305	6.250	6.556
Total	15	4.94707	1.293198	.333902	4.23092	5.66322	3.136	6.556

Hasil_Uji_Viskositas

Tukey B^a

Formula_Sedian_Gel	N	Subset for alpha = 0.05		
		1	2	3
Formula 1	3	3.32800		
Formula 2	3	3.59100		
Formula 4	3		5.61933	
Formula 3	3		5.81100	
Formula 5	3			6.38600

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

HALAMAN PERSETUJUAN

**PENGEMBANGAN FORMULASI SEDIAAN GEL
KOMBINASI *BAKUCHIOL* DAN *ASLATICOSIDE***

SKRIPSI

Erisa Nazmi Azzahra

201FF03024

Disetujui Oleh Pembimbing Untuk Mengajukan Ujian Sidang Skripsi Pada Program
Studi Sarjana Farmasi

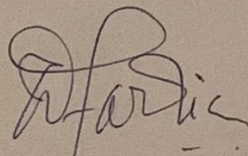
Universitas Bhakti Kencana Bandung

Bandung, 10 Juli 2024

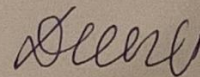
Menyetujui,

Pembimbing Utama,

Pembimbing Serta,



(apt. Yanni Dhiani Mardhiani, M.BSc)
NIDN: 0430067205



(apt. Deny Puriyani Azhary M.Si)
NIDN: 0416057103

- **Halaman pengesahan**

HALAMAN PENGESAHAN

SKRIPSI

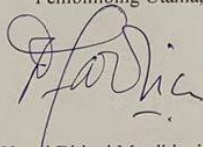
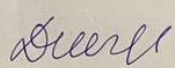
**PENGEMBANGAN FORMULASI SEDIAAN GEL KOMBINASI
BAKUCHIOL DAN ASIATICOSIDE**

ERISA NAZMI AZZAHRA

201FF03024

Untuk Memperoleh Gelar Sarjana Farmasi
Program Studi Farmasi

Bandung, 30 Juli 2024

Pembimbing Utama,  (apt. Yanpi Dhiani Mardhiani, M.BSc) NIDN: 0430067205	Pembimbing Serta,  (apt. Deny Puriyani Azhary M.Si) NIDN: 0416057103
---	---

iii

- Surat Pernyataan

PERNYATAAN

Yang bertanda tangan di bawah ini,
Nama : Erisa Nazmi Azzahra
NPM : 201FF03024
Adalah mahasiswa Prodi S1 Farmasi, Fakultas Farmasi, Universitas Bhakti
Kencana Bandung, menyatakan dengan sesungguhnya bahwa Naskah Tugas
Akhir/Skripsi yang saya tulis dengan judul :

**Pengembangan Formulasi Sediaan Gel Kombinasi Bakuchiol dan
*Asiaticoside***

Adalah benar – benar merupakan hasil karya saya sendiri. Apabila di kemudian
hari diketahui bahwa isi Naskah ini merupakan hasil plagiiasi, maka saya bersedia
menerima sanksi berupa pembatalan kelulusan dan atau pencabutan gelar yang
saya peroleh.
Demikian surat pernyataan ini saya buat untuk dapat dipergunakan sebagaimana
mestinya.

Bandung, 2 agustus 2024

Yang membuat pernyataan,


Erisa Nazmi Azzahra
NPM : 201FF03024

- Surat Pesetujuan Hak-Cipta

PERSETUJUAN

Yang bertanda tangan dibawah ini,

Nama : Erisa Nazmi Azzahra

NPM : 201FF03024

Menyatakan bahwa demi kepentingan perkembangan ilmu pengetahuan, saya menyetujui abstrak Skripsi saya dengan judul:

Pengembangan Formulasi Sediaan Gel Bakuchiol dan Asiaticoside

Untuk dipublikasikan atau ditampilkan di internet atau media lain yaitu Digital Library Perpustakaan Universitas Bhakti Kencana Bandung untuk kepentingan akademik, sebatas sesuai dengan undang-undang Hak-Cipta. Demikian Surat ini saya buat untuk dapat dipergunakan sebagaimana mestinya.

Bandung, 09 Agustus 2024

Yang membuat Pernyataan,

Erisa Nazmi Azzahra

NPM: 201FF03024

- Form Kartu Bimbingan Tugas Akhir

KARTU BIMBINGAN TUGAS AKHIR

Pembimbing Utama	: Ibu apt. Yanni Dhiani Mardhiani, M.BSc	:
Nama Mahasiswa	: Erisa Nazmi Azzahra	:
NPM	: 201FF03024	:
Bidang Ilmu	: Farmasetika dan Teknologi Farmasi	:

N o	Hari/Tanggal	Waktu	Tempat	Materi	Paraf Dosen
1	Senin, 29 Januari 2024	11.30	Online	Mendiskusikan mengenai enzim tyrosinase dan teknis pemakaiannya	
2	Kamis 29 Februari 2024	15.56	Online	Mengajukan surat izin etik untuk di tanda tangani	
3	Jum'at, 1 maret 2024	12.30	Online	Mendiskusikan pembelian bahan bahan	
4	Sabtu 2 maret 2024	12.50	Online	Mendiskusikan mengenai etik kepada hewan dan teknis lebih mendalam	
5	Selasa, 5 Maret 2024	10.50	Online	Diskusi mengenai teknis pengerjaan spektro untuk pengujian nantinya	
6	Kamis 7 maret 2024	14.00	Online	Mendiskusikan kendala mengenai bahan-bahan	
7	Sabtu 9 maret 2024	15.00	Online	Mendiskusikan penggantian bahan-bahan untuk pengujian	
8	Senin, 11 maret 2024	17.00	Online	Mendiskusikan mengenai jurnal-jurnal yang akan dipakai pada draft proposal	
9	Rabu, 13 maret 2024	11.00	Online	Penggantian bahan-bahan yang akan digantikan dengan bahan lainnya untuk pengujian pencerah	
10	Jum'at 22 maret 2024	17.00	Online	Memastikan formula gel yang akan digunakan dan mendiskusikannya lebih lanjut	
11	Jum'at 22 maret 2024	11.30	Online	Menanyakan pengujian dan teknis penggunaan sediaan gel pada alat pH	
12	Jum'at 29 maret 2024	12.00	Online	Mendiskusikan pengujian uji stabilitas fisik	
13	Senin, 22 april 2024	07.20	Online	Mendiskusikan bahan aktif yang akan digunakan kedalam formula	
14	Rabu, 24 April 2024	12.00	Online	Memberitahukan sediaan yang telah jadi dan mendiskusikannya apa saja yang ada kendalanya dan hasilnya bagaimana	
15	Kamis, 2 mei 2024	08.00	Online	Ketersediaan bahan-bahan zat aktif dan perkembangan penelitian	

16.	Kamis, 16 mei 2024	12.00	online	Diskusi terkait bahan bahan yang tidak ada dan pengganti bahannya	
17	Senin 20 Mei	12.00	Online	Berdiskusi mengenai pengujian sineresis atau memilih pengujian stabilitas terhadap sediaan gel	
18.	Selasa, 21 Mei 2024	07.25	Online	Berdiskusi tentang pengujian sineresis dan memberikan berbagai jurnal yang akan dijadikan sebagai acuan	
19.	28 Mei	12.50	Online	Teknis dari pengujian sineresis	
20	Rabu, 29 Mei 2024	09.10	Online	Berdiskusi mengenai hasil uji sineresis nantinya dandepannya	
21	Rabu, 30 Mei	07.00	Online	Diskusi mengenai hasil sineresis	
22	Senin, 10 Juni	14.00	Online	Pengujian Akhir Iritasi	
23.	Minggu, 7 Juli	15.00	Online	Diskusi kemali mengenai Uji Sineresis Terhadap Gel	

Catatan : Kartu ini harus dibawa setiap kali melakukan bimbingan dan harus diisi oleh dosen pembimbing.

KARTU BIMBINGAN TUGAS AKHIR

Pembimbing Serta	: Ibu apt. Deny Puriyani Azhary M.Si	:
Nama Mahasiswa	: Erisa Nazmi Azzahra	:
NPM	: 201FF03024	:
Bidang Ilmu	: Farmasetika dan Teknologi Farmasi	:

1	Jum'at 1 maret 2024	13.00	Online	Pengajuan surat izin lab dan izin etik dan mendiskusikan teknis pada saat di lab	<i>Becorpi</i>
2	Selasa, 26 maret 2024	11.40	Online	Mendiskusikan teknis pengukuran dan penggunaan pada alat pH pada saat pengecekan sediaan	<i>Becorpi</i>
3	Rabu, 27 Maret 2024	11.55	Online	Mendiskusikan mengenai pengujian uji stabilitas fisik pada sediaan yang akan dibuat	<i>Becorpi</i>
4	Sabtu 20 april 2024	15.00	Online	Mendiskusikan sediaan yang telah dibuat dan meminta saran	<i>Becorpi</i>
5	senin 22 april 2024	12.00	Online	Mendiskusikan hasil dari pH zat aktif asiaticoside setelah dilarutkan	<i>Becorpi</i>
6	selasa 23 april 2024	10.00	Online	Mendiskusikan hasil basis gel yang telah jadi	<i>Becorpi</i>
7	Kmis 25 april 2024	12.55	Online	Mendiskusikan pelarut yang akan digunakan kedalam sediaan dan meminta saran baiknya	<i>Becorpi</i>
8	Jumat 26 april 2024	08.00	Online	Mendiskusikan hasil formula yang telah jadi dengan adanya penambahan zat aktif	<i>Becorpi</i>
9	Kamis, 2 Mei 2024	11.50	Online	Memperhatikan bahan aktif dan pengujian yang harus di dahulukan	<i>Becorpi</i>
10	Kamis, 16 Mei 2024	16.00	Online	Penggantian zat aktif dan bahan-bahan yang tidak tersedia	<i>Becorpi</i>
11	Selasa, 21 Mei 2024	07.30	Online	Berdiskusi mengenai pengujian akhir sineresis dan mengirimkan jurnal acuan yang dijadikan sebagai acuan pengujian	<i>Becorpi</i>
12	Kamis, 30 Mei 2024	10.00	Online	Mengirimkan hasil uji sineresis dan berdiskusi lanjutan mengenai uji sineresis	<i>Becorpi</i>
13	Senin, 10 Juni 2024	17.00	Online	Pengurusan izin etik	
14	Rabu, 12 Juni 2024	13.30	Offline	Pengujian sineresis dan mendiskusikan mengenai Uji penercah dan perubahannya	
15	Minggu, 7 Juli 2024	15.00	Online	Diskusi Mengenai Pengujian sineresis terkait perhitungannya	

Catatan : Kartu ini harus dibawa setiap kali melakukan bimbingan dan harus diisi oleh dosen pembimbing.

- Data Diri Mahasiswa / Daftar Riwayat hidup



Erisa Nazmi Azzahra

08985655109 | erisanazmi99@gmail.com | Cicalengka, Kab. Bandung Jawa Barat

Saya merupakan lulusan dari perguruan tinggi Bhakti Kenaca Universty saya berfokus pada kelompok Ilmuan Farmasetika dan Teknologi Farmasi. Memiliki pengalaman magang dalam bidang Farmasi dimana hal tersebut dapat mengasah keterampilan saya yang dibutuhkan seperti komunikasi, bekerja sama dalam team. Memiliki kepribadian disiplin, tekun, teliti, mudah beradaptasi, inisiatif dan bertanggung jawab. Memiliki minat untuk berkarir di bidang farmasi klinis sebagai Apoteker.

DATA PRIBADI

Nama : Erisa Nazmi Azzahra

Alamat : Perumahan Pondok Permai Lestari blok C2/ No.1 RT/RW
07/011 Desa. Panenjoan Kec. Cicalengka Kab. Bandung

Kode Pos 40395

Jenis kelamin : Perempuan

Tanggal Kelahiran : 02 – Januari – 2002

Agama : Islam

Pendidikan :

- | | |
|-------------------------------------|-------------|
| - SMPN 1 CICALENGKA | 2014 – 2017 |
| - SMK Farmasi Guna Dharma Nusantara | 2017 – 2020 |
| - Bhakti Kenacana Univercity | 2020 - 2024 |