

LAMPIRAN

Lampiran 1 Dokumentasi Penelitian

Penimbangan bahan



Penimbangan bobot tikus



Pengorolan tikus



Pembedahan Tikus



Pembuatan homogenat hati



Pembuatan homogenat ginjal



Sentrifugasi sampel



Inhibisi enzim xo



Pembuatan larutan kuersetin



Skrining fitokimia



Pengujian kadar flavonoid



Pengukuran pH



Lampiran 2 Determinasi tanaman Jahe

HERBARIUM JATINANGOR
LABORATORIUM TAKSONOMI TUMBUHAN
JURUSAN BIOLOGI FMIPA UNPAD

Gedung D2-212, Jl. Raya Bandung Sumedang Km 21 Jatinangor
Telp. 089689992695, email: phanerogamae@yahoo.com

LEMBAR IDENTIFIKASI TUMBUHAN

No.30/HB/02/2024.

Herbarium Jatinangor, Laboratorium Taksonomi Tumbuhan, Jurusan Biologi FMIPA UNPAD, dengan ini menerangkan bahwa:

Nama : Nadhira Aulia Zahra
NIM/NIP : 201FF03018
Instansi : Universitas Bhakti Kencana.
Lokasi : Bandung.

Telah melakukan identifikasi tumbuhan, dengan No. Koleksi: -
Tanggal Koleksi : 15 Februari 2024.

Hasil Identifikasi

Nama Ilmiah : *Zingiber officinale* Roscoe
Sinonim : *Zingiber officinale* var. *Rubrum* Theilade
Nama Lokal : Rimpang Jahe
Suku/Famili : Zingiberaceae

Klasifikasi (Hirarki Taksonomi)

Kingdom : Plantae
Divisi : Magnoliophyta
Class : Liliopsida
Ordo : Zingiberales
Famili : Zingiberaceae
Genus : *Zingiber*
Species : *Zingiber officinale* Roscoe

Referensi:

Backer, C. A. and Bakhuizen v/d Brink R. C Jr. 1963. Flora of Java. Wolter-Noordhoff NV. Groningen.
Cronquist, Arthur. 1981. An Integrated System of Classification of Flowering Plants. Columbia University Press. New York
The Plant List. Website Dunia Tumbuhan. <http://www.theplantlist.org/tpl1.1/record/kew-158489>.

Jatinangor, 16 Februari 2024.

Identifikator,

LABORATORIUM TAKSONOMI TUMBUHAN
JURUSAN BIOLOGI FMIPA-UNPAD

Drs. Joko Kusmoro, M.P.
NIP. 19600801 199101 1 001

Lampiran 3 Determinasi tanaman Kencur

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LABORATORIUM TAKSONOMI TUMBUHAN
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 Gedung D2-212, Jl. Raya Bandung Sumedang Km 21 Jatinangor
 Telp. 089689992695, email: phanerogamae@yahoo.com

LEMBAR IDENTIFIKASI TUMBUHAN
 No.31/HB/02/2024.

Herbarium Jatinangor, Laboratorium Taksonomi Tumbuhan, Jurusan Biologi FMIPA UNPAD, dengan ini menerangkan bahwa:

Nama : Nadhira Aulia Zahra
 NIM/NIP : 201FF03018
 Instansi : Universitas Bhakti Kencana.
 Lokasi : Bandung.

Telah melakukan identifikasi tumbuhan, dengan No. Koleksi :
 Tanggal Koleksi : 15 Februari 2024.

Hasil Identifikasi

Nama Ilmiah : *Kaempferia galanga* L.
 Sinonim : *Kaempferia rotunda* Blanco
 Nama Lokal : Rimpang Kencur
 Suku/Famili : Zingiberaceae

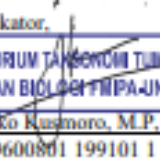
Klasifikasi (Hirarki Taksonomi)

Kingdom	Plantae
Divisi	Magnoliophyta
Class	Liliopsida
Ordo	Zingiberales
Famili	Zingiberaceae
Genus	<i>Kaempferia</i>
Species	<i>Kaempferia galanga</i> L.

Referensi:
 Backer, C. A. and Bakhuizen v/d Brink R. C Jr. 1963. Flora of Java. Wolter-Noordhoff NV. Groningen.
 Cronquist, Arthur. 1981. An Integrated System of Classification of Flowering Plants. Columbia University Press. New York
 The Plant List. Website Dunia Tumbuhan. <http://www.theplantlist.org/tpl1.1/record/kew-158489>.

Jatinangor, 16 Februari 2024.

Identifikator,


 LABORATORIUM TAKSONOMI TUMBUHAN
 JURUSAN BIOLOGI FMIPA UNPAD
 Drs. JoKo Kusmoro, M.P.
 NIP. 19600801 199101 1 001

Lampiran 4 Kode etik



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,
RISET DAN TEKNOLOGI
UNIVERSITAS PADJADJARAN
KOMITE ETIK PENELITIAN
RESEARCH ETHICS COMMITTEE

Jl. Prof. Eyckman No. 38 Bandung 40161
Telp. & Fax. 022-2038697 email: kep@unpad.ac.id, website: kep.unpad.ac.id

No. Reg.: 2401020011

PERSETUJUAN ETIK
ETHICAL APPROVAL

Nomor: 115/UN6.KEP/EC/2024

Komite Etik Penelitian Universitas Padjadjaran Bandung, telah mengkaji dengan teliti proposal penelitian yang menggunakan subjek Hewan Coba dalam penelitian yang berjudul:

The Research Ethics Committee Universitas Padjadjaran Bandung, has been thoroughly reviewed proposal for reaserch with animal subjects in reaserach entitled:

"UJI IN VIVO DAN IN VITRO AKTIVITAS ANTIHIPERURISEMIA EKSTRAK TUNGGAL DAN KOMBINASI RIMPANG JAHE (ZINGIBER OFFICINALE) DAN RIMPANG KENCUR (KAEMPFERIA GALANGA) TERHADAP INHIBISI XANTINE OXIDASE PADA MODEL HEWAN SINDROM METABOLIK"

Nama Peneliti Utama <i>Principal Researcher</i>	:	Yoga Adi Restu Muzaki
Pembimbing/Peneliti Lain <i>Supervisor/Other Researcher</i>	:	Dr. apt. Patonah, M.Si apt. Ika Kurnia Sukmawati, M.Si
Nama Institusi <i>Institution</i>	:	Program Sarjana Program Studi Farmasi Fakultas Farmasi Universitas Bhakti Kencana Bandung

proposal tersebut dapat disetujui pelaksanaannya.
hereby declare that the proposal is approved.

Ditetapkan di : Bandung
Issued in
Tanggal : 02-02-2024
Date



Ketua,
Chairman,
Prof. Nur Atik, dr. M.Kes., MOHRE., PhD
NIP. 19811010 200801 1 019

Keterangan/notes:

Peretujuan etik ini berlaku selama satu tahun sejak tanggal ditetapkan.

This ethical clearance is effective for one year from the due date.

Pada akhir penelitian, laporan pelaksanaan penelitian harus diserahkan ke Komite Etik Penelitian.

In the end of the research, progress and final summary report should be submitted to the Research Ethics Committee.

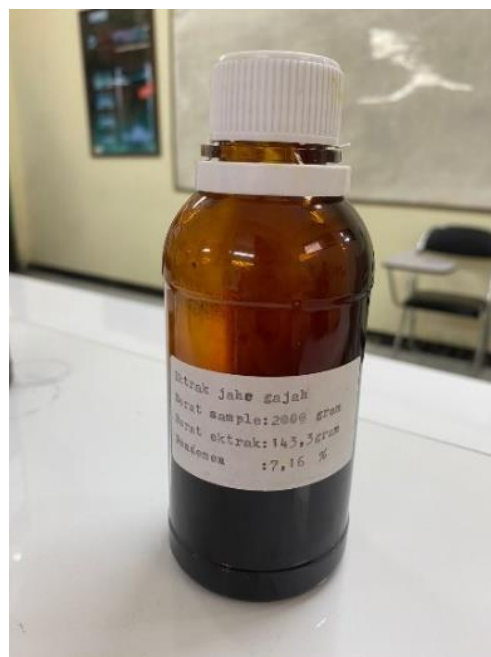
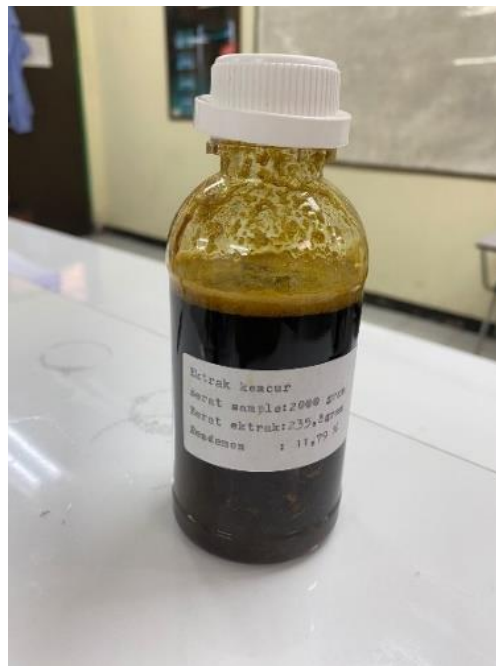
Jika ada perubahan atau penyimpangan protokol dan/atau perpanjangan penelitian, harus mengajukan kembali permohonan kajian etik penelitian.

If there be any protocol modification or deviation and/or extension of the study, the Principal Investigator is required to resubmit the protocol for approval.

Jika ada kejadian serius yang tidak diinginkan (KTD) harus segera dilaporkan ke Komite Etik Penelitian.

If there are Serious Adverse Events (SAE) should be immediately reported to the Research Ethics Committee

Lampiran 5 Ekstraksi Jahe dan kencur



Lampiran 6 Identifikasi Senyawa Aktif

- Identifikasi Senyawa Aktif Jahe



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PROOF OF SERVICE
24-05/PoS-MH/04

No : 24-05/PoS-MH/04
Lampiran : 4 halaman
Perihal : Laporan Hasil Analisis

Bandung, 10 Mei 2024

Kepada
Nadhira Aulia Zahra
Universitas Bhakti Kencana
Jl. Soekarno Hatta No. 754, Cipadung Kidul, Kec. Panyileukan,
Kota Bandung, Jawa Barat 40614

Dengan hormat,

Berdasarkan surat tagihan nomor: 24-03/I-MH/11, maka bersama ini kami sampaikan hasil uji/analisis laboratorium dari sampel yang telah dikirimkan.

Demikian surat ini kami sampaikan semoga dapat dipergunakan sebagaimana mestinya.

Atas kerjasamanya kami mengucapkan terima kasih.

Hormat kami,


Ula Aulia Fitrian, M.Si
Product Manager




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RESULT OF ANALYSIS
Laporan Hasil Analisis: 24-05/MH/Rep/LHA/004
I. Number / Nomor

1.1 Quotation No. / No. Penawaran : 24-03/Q-MH/11

II. Customer / Pelanggan

 2.1 Name / Nama : Nadhira Aulia Zahra
 2.2 Address / Alamat : Universitas Bhakti Kencana
 Jl. Soekarno Hatta No. 754, Cipadung Kidul,
 Kec. Panyileukan,
 Kota Bandung, Jawa Barat 40614
 2.3 Phone / Telepon : +62 851 7689 8656
 2.4 Contact Person / Personil : Nadhira Aulia Zahra
 Penghubung

III. Sample / Sampel Analisis

 3.1 Sample Code / Kode Sampel : Ekstrak Jahe
 3.2 Batch Number / No Batch : -
 3.3 Lot Number / No Lot : -
 3.4 Packaging / Kemasan : 5 gr
 3.5 Production Date / Tanggal Produksi : -
 3.6 Expiry Date / Tanggal Kadaluausa : -
 3.7 Factory Name / Nama Pabrik : -
 3.8 Factory Address / Alamat Pabrik : -
 3.9 Trade Mark / Nama Dagang : -
 3.10 Sample Name / Nama Sample : Jahe
 3.11 Other Information / Keterangan lain : -
 No Notifikasi : -
 No Pengajuan : -
 No Registrasi : -
 No Principal Code : -
 3.12 Date of Received / Diterima : 28 Maret 2024
 3.13 Date of Analysis / Tanggal Analisis : 10 Mei 2024
 3.14 Type of Analysis/ Jenis Analisis : Analisis Kualitatif 6-gingerol dari Ekstrak Jahe

IV. Result / Hasil Uji

Next page/ Halaman selanjutnya




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ANALYSIS CONDITION
HPLC instrument Arc™ HPLC with PDA Detector

HPLC condition

Column Reliant® T3 C18 5 µm column (4.6 x 150 mm)

Column temperature 40 °C

Solvent Water (A)-Acetonitrile (B)-Methanol (C) (0.00-10.00 min, 40%A-30%B-30% C; 10.00-13.00 min, 100%B; 13.00-17.00 min, 40%B-30%B-30%C, v/v); gradient

Flow rate 1 ml/min

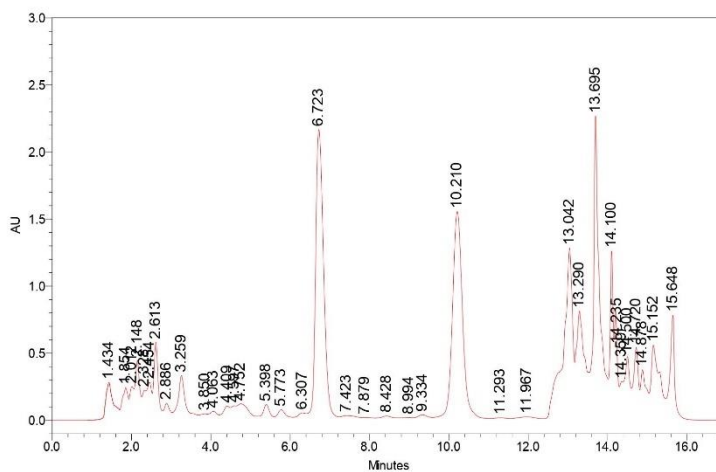
Detector 280 nm

Volume injection 10 µl

RESULT OF ANALYSIS

Laporan Hasil Pengujian : 24-05/MH/Rep/LHA/004

No.	Sample	Parameter	Detector	Result	Picture No.
1	Sampel Ekstrak Jahe	6-gingerol	PDA	Terdapat kandungan 6-gingerol	1,2,3



Gambar 1. Kromatogram Sampel Ekstrak Jahe



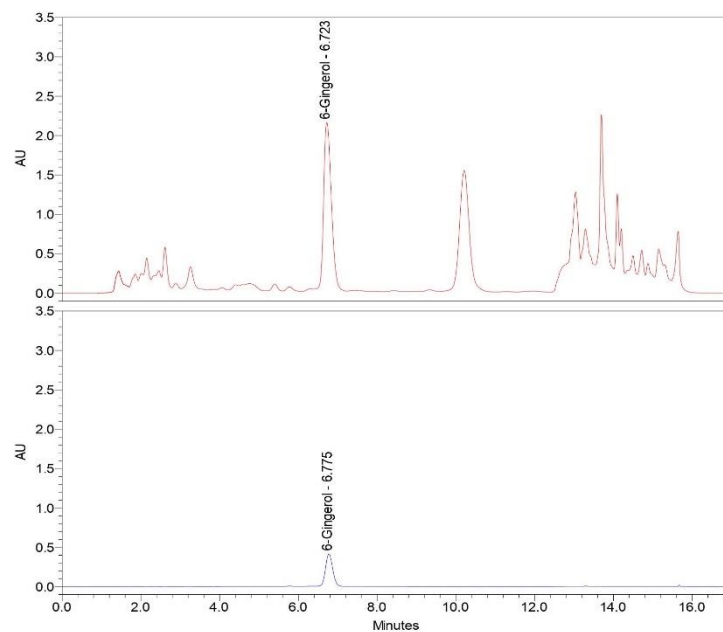
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Gambar 2. Kromatogram Overlay Sampel Ekstrak Jahe (atas) dan *Standard* 6-gingerol (bawah)





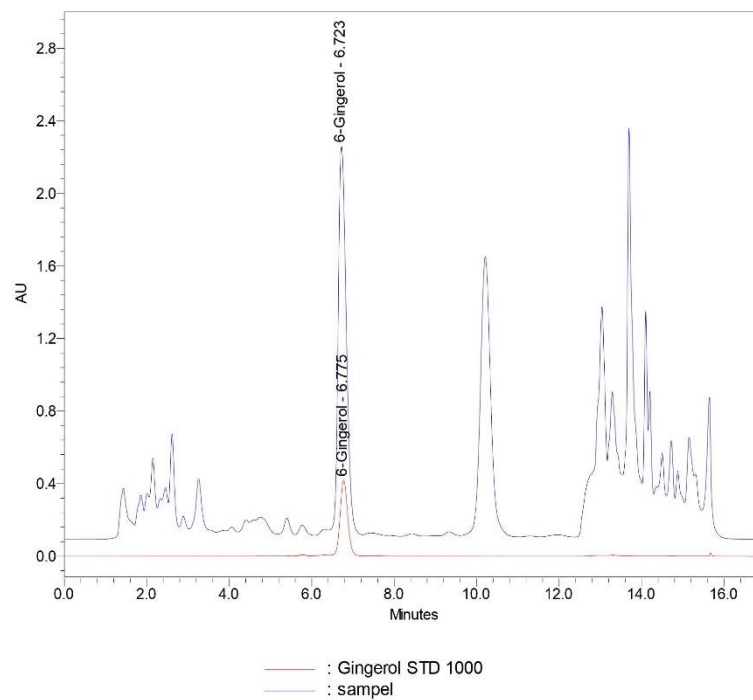
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Gambar 3. Kromatogram Overlap Sampel Ekstrak Jahe (atas) dan *Standard* 6-gingerol (bawah)



- **Identifikasi Seyawa Aktif Kencur**



PROOF OF SERVICE
24-05/PoS-MH/05

No : 24-05/PoS-MH/05
Lampiran : 5 halaman
Perihal : Laporan Hasil Analisis

Bandung, 10 Mei 2024

Kepada
Nadhira Aulia Zahra
Universitas Bhakti Kencana
Jl. Soekarno Hatta No. 754, Cipadung Kidul, Kec. Panyileukan,
Kota Bandung, Jawa Barat 40614

Dengan hormat,

Berdasarkan surat tagihan nomor: 24-03/I-MH/11, maka bersama ini kami sampaikan hasil uji/analisis laboratorium dari sampel yang telah dikirimkan.

Demikian surat ini kami sampaikan semoga dapat dipergunakan sebagaimana mestinya.

Atas kerjasamanya kami mengucapkan terima kasih.

Hormat kami,


Ula Aulia Fitrian, M.Si
Product Manager




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RESULT OF ANALYSIS
Laporan Hasil Analisis: 24-05/MH/Rep/LHA/005
I. Number / Nomor

1.1 Quotation No. / No. Penawaran : 24-03/Q-MH/11

II. Customer / Pelanggan

 2.1 Name / Nama : Nadhira Aulia Zahra
 2.2 Address / Alamat : Universitas Bhakti Kencana
 Jl. Soekarno Hatta No. 754, Cipadung Kidul,
 Kec. Panyileukan,
 Kota Bandung, Jawa Barat 40614
 2.3 Phone / Telepon : +62 851 7689 8656
 2.4 Contact Person / Personil : Nadhira Aulia Zahra
 Penghubung

III. Sample / Sampel Analisis

 3.1 Sample Code / Kode Sampel : Ekstrak Kencur
 3.2 Batch Number / No Batch : -
 3.3 Lot Number / No Lot : -
 3.4 Packaging / Kemasan : 5 gr
 3.5 Production Date / Tanggal Produksi : -
 3.6 Expiry Date / Tanggal Kadaluausa : -
 3.7 Factory Name / Nama Pabrik : -
 3.8 Factory Address / Alamat Pabrik : -
 3.9 Trade Mark / Nama Dagang : -
 3.10 Sample Name / Nama Sample : Kencur
 3.11 Other Information / Keterangan lain : -
 No Notifikasi : -
 No Pengajuan : -
 No Registrasi : -
 No Principal Code : -
 3.12 Date of Received / Diterima : 28 Maret 2024
 3.13 Date of Analysis / Tanggal Analisis : 10 Mei 2024
 3.14 Type of Analysis/ Jenis Analisis : Analisis Kualitatif Kaempferol dari Ekstrak Kencur

IV. Result / Hasil Uji

Next page/ Halaman selanjutnya




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ANALYSIS CONDITION

HPLC instrument	Arc™ HPLC with PDA Detector
HPLC condition	
Column	Reliant® T3 C18 5 µm column (4.6 x 150 mm)
Column temperature	40 °C
Solvent	Water (A)-Acetonitrile (B) (0.00-10.00 min, 35% B; 10.00-13.00 min, 100%B; 13.00-17.00 min, 35% B, v/v); gradient
Flow rate	1 ml/min
Detector	360 nm
Volume injection	10 µl

RESULT OF ANALYSIS
Laporan Hasil Pengujian : 24-05/MH/Rep/LHA/005

No.	Sample	Parameter	Detector	Result	Picture No.
1	Sampel Ekstrak Kencur	Kaempferol	PDA	Terdapat kandungan Kaempferol tapi kadarnya rendah	1,2,3,4





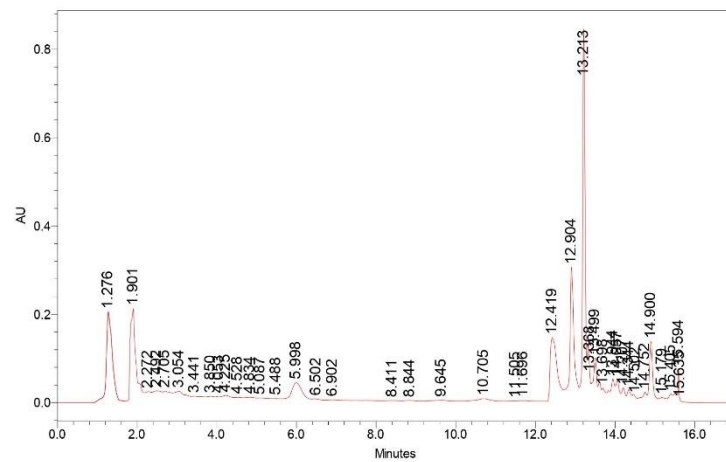
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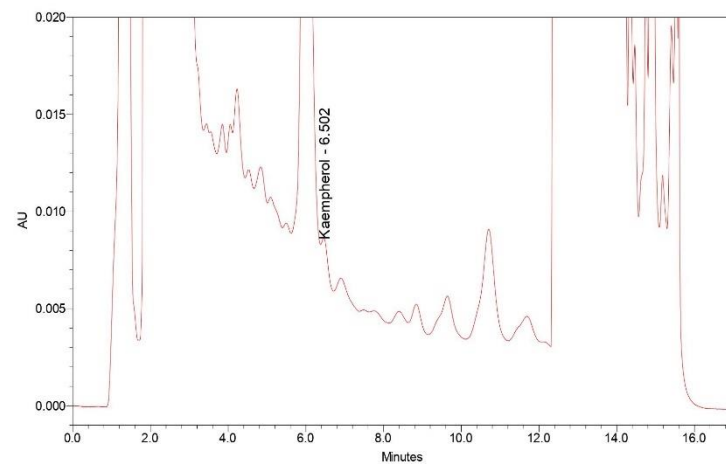
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Gambar 1. Kromatogram Sampel Ekstrak Kencur



Gambar 2. Perbesaran Kromatogram Sampel Ekstrak Kencur

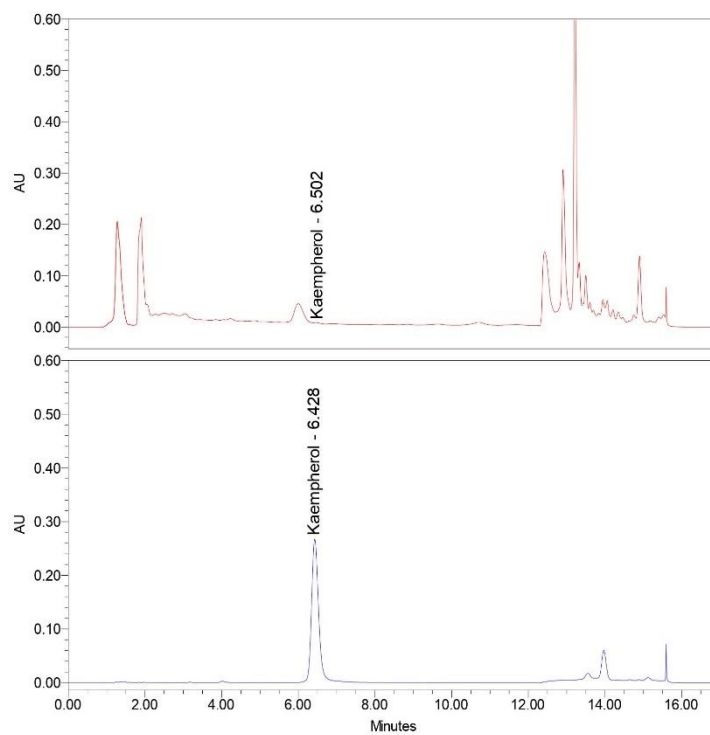
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Gambar 3. Kromatogram Overlay Sampel Ekstrak Kencur (atas) dan *Standard Kaempferol* (bawah)





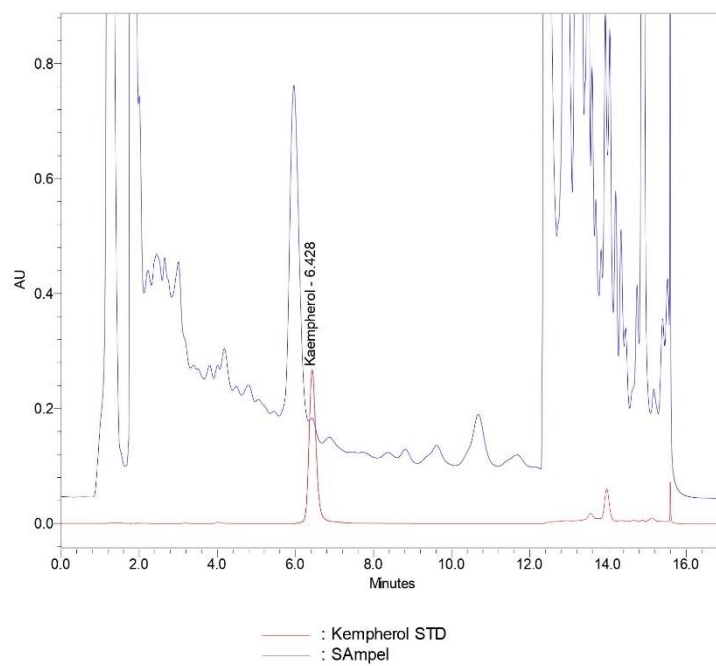
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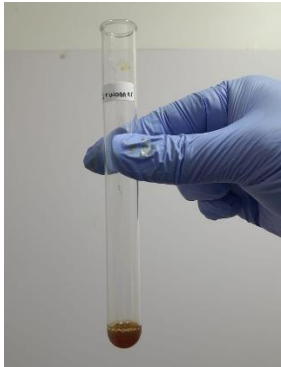


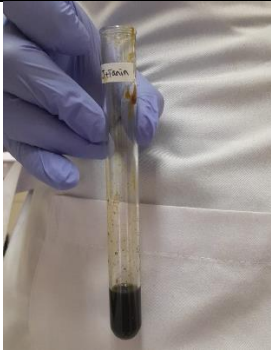
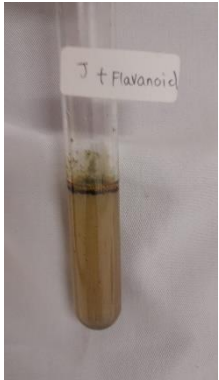
Gambar 4. Kromatogram Overlap Sampel Ekstrak Kencur (atas) dan *Standard* Kaempferol (bawah)



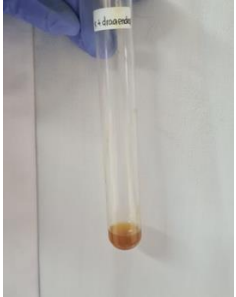
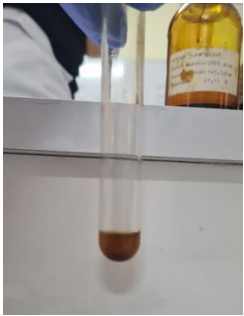
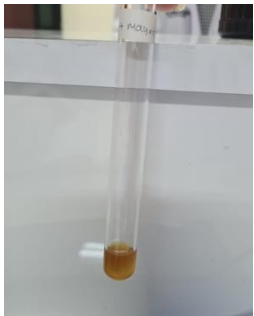
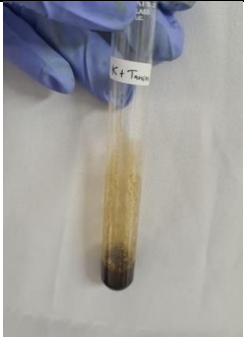
Lampiran 7 Skrining Fitokimia

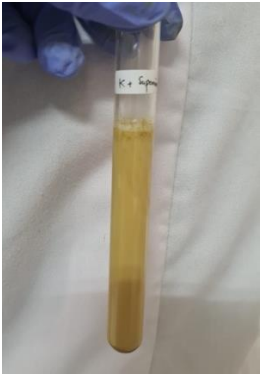
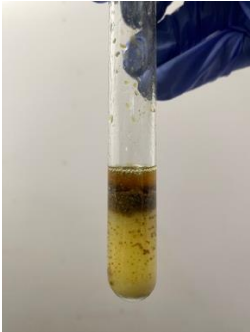
- Hasil skrining fitokimia Jahe

No	Pereaksi		Hasil	Keterangan	Dokumentasi
1.	Alkaloid	Dragendorf	+	Endapan jingga	
		Wagner	+	Endapan coklat	
		Mayer	-	Negatif palsu (tidak ada endapan putih tapi ada bayangan putih)	

2.	Tanin	+	Biru kehitaman	
3.	Saponin	+	Tinggi busa > 1 cm	
4.	Flavonoid	+	Cincin merah	
5.	Triterpenoid	+	Kecoklatan	

- Hasil skrining fitokimia kencur

No	Pereaksi		Hasil	Keterangan	Dokumentasi
1.	Alkaloid	Dragendorf	+	Endapan jingga	
		Wagner	+	Endapan coklat	
		Mayer	-	Negatif palsu (tidak ada endapan putih tapi ada bayangan putih)	
2.	Tanin		+	Hitam kehijauan	

3.	Saponin	-	Tinggi busa < 1 cm	
4.	Flavonoid	+	Cincin merah	
5.	Triterpenoid	+	Kecoklatan	



Lampiran 8 Hasil SPSS One way Anova

- Kadar NO (*Nitric oxide*)

Deskriptives

Descriptives								
Kadar_NitritOxide								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Normal	5	19.02600	.678786	.303562	18.18318	19.86882	18.106	19.706
Positif	5	2.24000	.279285	.124900	1.89322	2.58678	1.950	2.700
Pembeding	5	17.84540	1.171638	.523972	16.39062	19.30018	16.055	19.206
Kombinasi_50	5	9.60260	3.682866	1.647028	5.02972	14.17548	5.901	13.954
Kombinasi_100	5	13.53400	2.880556	1.288224	9.95732	17.11068	10.453	17.255
Total	25	12.44960	6.533552	1.306710	9.75268	15.14652	1.950	19.706

One Way Anova

ANOVA					
Kadar_NitritOxide					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	929.405	4	232.351	48.870	.000
Within Groups	95.090	20	4.755		
Total	1024.495	24			

Tes normalitas

Tests of Normality							
Kelompok		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Kadar_NitritOxide	Normal	.205	5	.200*	.924	5	.554
	Positif	.286	5	.200*	.875	5	.289
	Pembanding	.219	5	.200*	.963	5	.830
	Kombinasi_50	.288	5	.200*	.850	5	.193
	Kombinasi_100	.205	5	.200*	.939	5	.661
*. This is a lower bound of the true significance.							
a. Lilliefors Significance Correction							

Tes homogenitas

Test of Homogeneity of Variances			
Kadar_NitritOxide			
Levene Statistic	df1	df2	Sig.
10.865	4	20	.000

Post hoc

Multiple Comparisons							
Dependent Variable: Kadar_NitritOxide							
(I) Kelompok			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	Normal	Positif	16.786000*	1.379060	.000	12.65934	20.91266
		Pembanding	1.180600	1.379060	.909	-2.94606	5.30726
		Kombinasi_50	9.423400*	1.379060	.000	5.29674	13.55006
		Kombinasi_100	5.492000*	1.379060	.006	1.36534	9.61866
	Positif	Normal	-16.786000*	1.379060	.000	-20.91266	12.65934
		Pembanding	-15.605400*	1.379060	.000	-19.73206	11.47874
		Kombinasi_50	-7.362600*	1.379060	.000	-11.48926	-3.23594
		Kombinasi_100	-11.294000*	1.379060	.000	-15.42066	-7.16734
	Pembanding	Normal	-15.605400*	1.379060	.000	-19.73206	11.47874
		Positif	15.605400*	1.379060	.000	11.47874	19.73206
		Kombinasi_50	8.242800*	1.379060	.000	4.11614	12.36946
		Kombinasi_100	4.311400*	1.379060	.038	.18474	8.43806
	Kombinasi_50	Normal	-9.423400*	1.379060	.000	-13.55006	-5.29674
		Positif	7.362600*	1.379060	.000	3.23594	11.48926
		Pembanding	-8.242800*	1.379060	.000	-12.36946	-4.11614
		Kombinasi_100	-3.931400	1.379060	.067	-8.05806	.19526
	Kombinasi_100	Normal	-5.492000*	1.379060	.006	-9.61866	-1.36534
		Positif	11.294000*	1.379060	.000	7.16734	15.42066
		Pembanding	-4.311400*	1.379060	.038	-8.43806	-.18474
		Kombinasi_50	3.931400	1.379060	.067	-.19526	8.05806
Games-Howell	Normal	Positif	16.786000*	.328253	.000	15.50057	18.07143
		Pembanding	1.180600	.605555	.381	-1.04285	3.40405
		Kombinasi_50	9.423400*	1.674769	.019	2.21913	16.62767
		Kombinasi_100	5.492000	1.323507	.053	-.09633	11.08033
	Positif	Normal	-16.786000*	.328253	.000	-18.07143	15.50057
		Pembanding	-15.605400*	.605555	.381	-17.81805	11.50625
		Kombinasi_50	-7.362600*	1.674769	.019	-10.58173	5.85653
		Kombinasi_100	-5.492000	1.323507	.053	-9.01103	8.02703

	Pembanding	-	.538653	.000	-	-
		15.605400*			17.87737	13.33343
	Kombinasi_50	-7.362600*	1.651757	.049	-	-.06280
					14.66240	
	Kombinasi_100	-	1.294264	.004	-	-5.59509
		11.294000*			16.99291	
	Normal	-1.180600	.605555	.381	-3.40405	1.04285
	Positif	15.605400*	.538653	.000	13.33343	17.87737
Pembanding	Kombinasi_50	8.242800*	1.728366	.028	1.19182	15.29378
	Kombinasi_100	4.311400	1.390707	.116	-1.14565	9.76845
Kombinasi_50	Normal	-9.423400*	1.674769	.019	-	-2.21913
					16.62767	
	Positif	7.362600*	1.651757	.049	.06280	14.66240
	Pembanding	-8.242800*	1.728366	.028	-	-1.19182
					15.29378	
Kombinasi_100	Kombinasi_100	-3.931400	2.090986	.400	-	3.39574
					11.25854	
	Normal	-5.492000	1.323507	.053	-	.09633
					11.08033	
	Positif	11.294000*	1.294264	.004	5.59509	16.99291
	Pembanding	-4.311400	1.390707	.116	-9.76845	1.14565
	Kombinasi_50	3.931400	2.090986	.400	-3.39574	11.25854

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

- Hasil spss inhibisi XO1 hati

Descriptives

Descriptives								
Inhibisi_XOI_Hati								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Normal	5	48.17794	18.888551	8.447217	24.72471	71.63117	38.487	81.921
Pembanding	5	82.82908	2.277282	1.018431	80.00146	85.65670	79.600	85.977

Kombinasi_50	5	62.47674	1.265800	.566083	60.90504	64.04844	60.419	63.749
Kombinasi_100	5	78.16098	.655898	.293326	77.34658	78.97538	77.229	78.856
Total	20	67.91119	16.525361	3.695183	60.17708	75.64529	38.487	85.977

Tes homogenitas

Test of Homogeneity of Variances			
Inhibisi_XOI_Hati			
Levene Statistic	df1	df2	Sig.
5.967	3	16	.006

Post hoc

Multiple Comparisons							
Dependent Variable: Inhibisi_XOI_Hati							
(I) Kelompok			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	Normal	Pembanding	-34.651140*	6.033207	.000	-51.91226	-17.39002
		Kombinasi_50	-14.298800	6.033207	.124	-31.55992	2.96232
		Kombinasi_100	-29.983040*	6.033207	.001	-47.24416	-12.72192
	Pembanding	Normal	34.651140*	6.033207	.000	17.39002	51.91226
		Kombinasi_50	20.352340*	6.033207	.018	3.09122	37.61346
		Kombinasi_100	4.668100	6.033207	.865	-12.59302	21.92922
	Kombinasi_50	Normal	14.298800	6.033207	.124	-2.96232	31.55992
		Pembanding	-20.352340*	6.033207	.018	-37.61346	-3.09122
		Kombinasi_100	-15.684240	6.033207	.082	-32.94536	1.57688
	Kombinasi_100	Normal	29.983040*	6.033207	.001	12.72192	47.24416
		Pembanding	-4.668100	6.033207	.865	-21.92922	12.59302
		Kombinasi_50	15.684240	6.033207	.082	-1.57688	32.94536

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

One Way Anova

ANOVA					
Inhibisi_XOI_Hati					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3732.680	3	1244.227	13.673	.000
Within Groups	1455.983	16	90.999		
Total	5188.663	19			

Hasil spss kadar MDA

a. Descriptive

Descriptives							
kadar_MDA							
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	Maximum
normal	5	.23740	.031840	.014239	.19787	.27693	.210
positif	5	.72440	.059492	.026606	.65053	.79827	.650
pemandangan	5	.37080	.038219	.017092	.32334	.41826	.312
kombinasi_50	5	.54100	.026898	.012029	.50760	.57440	.511
kombinasi_100	5	.39700	.087011	.038913	.28896	.50504	.316
Total	25	.45412	.176316	.035263	.38134	.52690	.210

b. Tes homogenitas

Test of Homogeneity of Variances			
kadar_MDA			
Levene Statistic	df1	df2	Sig.
5.327	4	20	.004

c. Post hoc

Multiple Comparisons							
Dependent Variable: kadar_MDA							
(I) kelompok			Mean Differen ce (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Low er Boun d	Uppe r Boun d
Tukey HSD	normal	positif	- .487000 *	.0338 33	.000	- .5882 4	- .3857 6
		pembanding	- .133400 *	.0338 33	.006	- .2346 4	- .0321 6
		kombinasi_ 50	- .303600 *	.0338 33	.000	- .4048 4	- .2023 6
		kombinasi_ 100	- .159600 *	.0338 33	.001	- .2608 4	- .0583 6
	positif	normal	.487000 *	.0338 33	.000	.3857 6	.5882 4
		pembanding	.353600 *	.0338 33	.000	.2523 6	.4548 4
		kombinasi_ 50	.183400 *	.0338 33	.000	.0821 6	.2846 4
		kombinasi_ 100	.327400 *	.0338 33	.000	.2261 6	.4286 4
	pembanding	normal	.133400 *	.0338 33	.006	.0321 6	.2346 4
		positif	- .353600 *	.0338 33	.000	- .4548 4	- .2523 6

Game s- Howel l		kombinasi_ 50	- .170200 *	.0338 33	.001	- .2714 4	- .0689 6
		kombinasi_ 100	- .026200	.0338 33	.935	- .1274 4	.0750 4
		kombinasi_ 50	normal .303600 *	.0338 33	.000	.2023 6	.4048 4
		positif	- .183400 *	.0338 33	.000	- .2846 4	- .0821 6
		pembanding	.170200 *	.0338 33	.001	.0689 6	.2714 4
		kombinasi_ 100	.144000 *	.0338 33	.003	.0427 6	.2452 4
		kombinasi_ 100	normal .159600 *	.0338 33	.001	.0583 6	.2608 4
		positif	- .327400 *	.0338 33	.000	- .4286 4	- .2261 6
		pembanding	.026200	.0338 33	.935	- .0750 4	.1274 4
		kombinasi_ 50	- .144000 *	.0338 33	.003	- .2452 4	- .0427 6
	normal	positif	- .487000 *	.0301 76	.000	- .5994 7	- .3745 3
		pembanding	- .133400 *	.0222 46	.002	- .2108 7	- .0559 3
		kombinasi_ 50	- .303600 *	.0186 40	.000	- .3684 4	- .2387 6
		kombinasi_ 100	- .159600	.0414 36	.057	- .3251 2	.0059 2
	positif	normal	.487000 *	.0301 76	.000	.3745 3	.5994 7
		pembanding	.353600 *	.0316 23	.000	.2396 1	.4675 9
		kombinasi_ 50	.183400 *	.0291 99	.006	.0710 1	.2957 9

	kombinasi_100	.327400*	.047139	.001	.15920	.49560
pembanding	normal	.133400*	.022246	.002	.05593	.21087
	positif	-.353600*	.031623	.000	-.46759	-.23961
	kombinasi_50	-.170200*	.020901	.000	-.24445	-.09595
	kombinasi_100	-.026200	.042501	.967	-.19067	.13827
kombinasi_50	normal	.303600*	.018640	.000	.23876	.36844
	positif	-.183400*	.029199	.006	-.29579	-.07101
	pembanding	.170200*	.020901	.000	.09595	.24445
	kombinasi_100	.144000	.040730	.084	-.02281	.31081
kombinasi_100	normal	.159600	.041436	.057	-.00592	.32512
	positif	-.327400*	.047139	.001	-.49560	-.15920
	pembanding	.026200	.042501	.967	-.13827	.19067
	kombinasi_50	-.144000	.040730	.084	-.31081	.02281

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

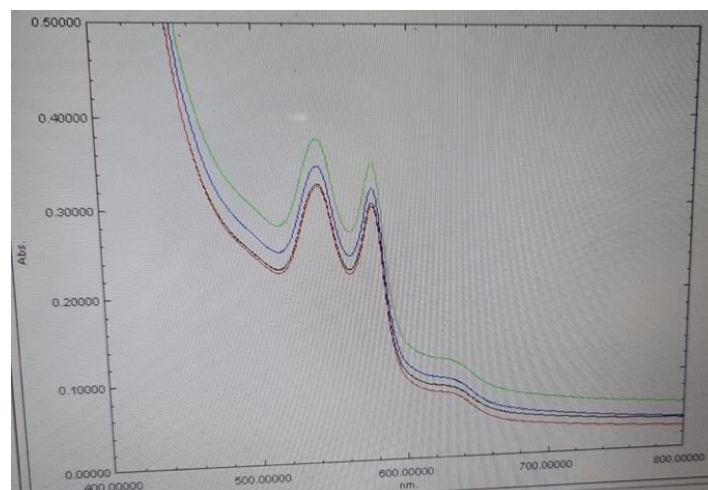
d. One Way Anova

ANOVA					
kadar_MDA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.689	4	.172	60.180	.000

Within Groups	.057	20	.003
Total	.746	24	

Lampiran 9 panjang gelombang kuersetin

No.	P/V	Wavelength nm.	Abs.	Description
1	⬆	576.00000	0.34889	
2	⬆	540.00000	0.37622	
3	⬆	411.50000	3.03467	
4	⬇	561.00000	0.27225	
5	⬇	514.00000	0.28018	



Hasil sentrifugasi



Lampiran 10 COA Fruktosa

NO : 3 / PSS-UKL / V / 2023 /
DATE : 27/10/2023

CERTIFICATE OF ANALYSIS

1. Name Of Product : High Fructose Corn Syrup 55
2. Customer : PT. Hade Sejati Pratama
3. Production Date : 20 Oktober 2023
4. Expired Date : 20 Oktober 2025
5. Lot No. : 02201023
6. Total Weight : 20010 Kg
7. Pembuat : Rego
8. Result Of Analysis :

NO	PARAMETER	SPECIFICATION	RESULT	METHODE
1	Appearance	Colorless Liquid	Colorless	Visual
2	pH (100%)	5.3 - 4.5	4.2	Potenciometry
3	pH (10 %)	4.5 - 6.5	5.3	Potenciometry
4	Brix (20°C)	Min. 75.0 %	75.6	Refractometry
5	Color(40 Bx; 420 nm)	Max. 0.007 abs	0.006	Spectrophotometry
6	Turbidity (35Bx; 720 nm)	Max. 0.002 abs	0.000	Spectrophotometry
7	Fructose	Min. 55.0 %	55.2	HPLC
8	Fructose + Glucose	Min. 94.0 %	96.4	HPLC
9	Oligo	Max. 6.0 %	3.6	HPLC
10	Arsenic (As)*	Max. 1.0 mg/kg	< 0.001	SNI 01-4886-1998
11	Lead (Pb)*	Max. 0.5 mg/kg	< 0.1	SNI 01-2896-1998
12	Copper (Cu)*	Max. 2.0 mg/kg	0.1	SNI 01-2896-1998
13	Total Plate Count	Max. 5.0×10^7	< 10	SNI 01-2897-1992
14	E. coli	< 3 MPN/g	< 3	SNI 01-2897-1992
15	Coliform	Max. 20 MPN/g	< 3	SNI 01-2897-1992
16	Molds	Max. 50 cfu/g	< 10	SNI 01-2897-1992
17	Yeast	Max. 50 cfu/g	< 20	SNI 01-2897-1992

* External Laboratory every 6 month

PT. Daesang Ingredients Indonesia, 27 Oktober 2023



Ahmad Rizal Mawardi
QA Staff

PT. Daesang Ingredients Indonesia

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Lampiran 11 Cek Plagiarisme

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KARTU BIMBINGAN TUGAS AKHIR II

Pembimbing Utama	: Dr. Apt. Palenah, M.Si
Nama Mahasiswa	: Aylina Nurhailizah
NPM	: 201901105
Bidang Ilmu	: Farmakologi Farmasi Klinis (FFK)

1.	Selasa / 20 Feb 2024	11.00	Ruang Dosen	• Menyampaikan Progres • Diskusi terkait in vitro • Identifikasi Schizum	✓
2.	Selasa / 27 Feb 2024	17.00	Online	Diskusi terkait perhitungan kimia	✓
3.	Selasa / 5 Maret 2024	11.30	Via zoom	• Progres penelitian • Substansi yang diteliti	✓
4.	Jum'at / 22 Maret 2024	18.00	Ruang Dosen	• Histologi Jantung, dan Mo • Progres penelitian	✓
5.	Senin / 27 April 2024	13.00	Via zoom	Progres penelitian	✓
6.	Senin / 30 April 2024	13.00	Via gmail	• Presentasi laporan kemajuan 2	✓
7.	Kamis / 23 Mei 2024	18.30	Via whatsapp	Diskusi terkait histologi	✓
8.	Jum'at / 24 Mei 2024	16.54	Via whatsapp	Diskusi terkait prosedur Mo	✓
9.	Rabu / 22 Mei 2024	15.00	Offline (Ruang dosen)	Presentasi Laporan kemajuan 2	✓
10.	Kamis / 30 Mei 2024	14.00	Kedang Jember	Diskusi serta tanda tangan laporan kemajuan 2	✓
11.	Jum'at / 14 Juni 2024	10.00	Ruang R2H	Konfirmasi pengesahan naskah Flavonoid dan histologi Jantung	✓
12.	Senin / 8 Juli 2024	09.00	zoom	Diskusi hasil keseluruhan penelitian	✓
13.	Selasa / 9 Juli 2024	19.00	Ruang RE 104	Revisi draft Skripsi	✓
14.	Rabu / 10 Juli 2024	11.00	Ruang R2H	Tanda tangan halaman persetujuan untuk seminar hasil	✓

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



KARTU BIMBINGAN TUGAS AKHIR

Pembimbing serta	: Dr.apr Yani Mulyani, M.Si
Nama Mahasiswa	: Agisna nurhalizah
NPM	: 201FF03105
Bidang Ilmu	: Farmakologi Farmasi Klinis (FFK)

No	Hari/Tanggal	Waktu	Tempat	Materi	Paraf Dosen
1.	Selasa, 20 maret 2024	11.09	Via whatsapp	Laporan progress penelitian	
2.	Jum'at, 26 april 2024	08.11	Via whatsapp	Laporan progress penelitian	
3.	Senin, 29 april 2024	11.09	Via whatsapp	Laporan kemajuan 1	
4.	Selasa, 30 april 2024	17.35	Via zoom	Presentasi laporan kemajuan 1	
5.	Kamis, 2 mei 2024	10.00	Via whatsapp	Diskusi terkait laporan kemajuan 1	
6.	Jum'at, 3 mei 2024	07.30	Offline	Diskusi terkait prosedur	
7.	Senin, 27 mei 2024	11.00	Via whatsapp	Mengkonfirmasi terkait prosedur	
8.	Jum'at, 31 mei 2024	16.00	Via whatsapp	Laporan kemajuan 2	
9.	Rabu, 10 Juli 2024	08.30	ruang rapat	Laporan progres hasil penelitian	
10.	Kamis, 11 Juli 2024	08.00	ruang rapat	Presentasi hasil penelitian	

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