

**LAMPIRAN 1**  
**DETERMINASI TANAMAN**

**HERBARIUM JATINANGOR**  
**LABORATORIUM TAKSONOMI TUMBUHAN**  
**JURUSAN BIOLOGI FMIPA UNPAD**  
Gedung D2-212, Jl. Raya Bandung Sumedang Km 21 Jatinangor  
Telp. 022-7796412, email: [phanerogamae@yahoo.com](mailto:phanerogamae@yahoo.com)

**LEMBAR IDENTIFIKASI TUMBUHAN**  
No.28/HB/05/2021

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

Nama : Reja Fauzi  
NPM : 31117133  
Instansi : STIKES BTH Tasikmalaya  
Telah melakukan identifikasi tumbuhan, dengan No. Koleksi :  
Tanggal Koleksi : 17 Mei 2021.  
Lokasi : Tasikmalaya.

**Hasil Identifikasi,**

Nama Ilmiah : *Chromolaena odorata* (L.) R.M.King & H.Rob.  
Sinonim : *Eupatorium odoratum* L.  
Nama Lokal : Kirinyuh  
Famili : Asteraceae

**Klasifikasi (Hierarki Taksonomi)**

Kingdom : Plantae  
Divisi : Magnoliophyta  
Class : Magnoliopsida  
Ordo : Asterales  
Famili : Asteraceae  
Genus : *Chromolaena*  
Species : *Chromolaena odorata* (L.) R.M.King & H.Rob.

**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 DuniaTumbuhan* <http://www.theplantlist.org/tpl1/record/kew-158489>. Diakses tanggal, 20 Mei 2021.

Jatinangor, 20 Mei 2021.

Identifikator,

LABORATORIUM TAKSONOMI TUMBUHAN  
JURUSAN BIOLOGI FMIPA-UNPAD

Drs. Joko Kusmoro, M.P.  
NIP. 19660801 199101 1 001

**LAMPIRAN 2**  
**ETHICAL CLEARANCE**

KOMISI ETIK PENELITIAN KESEHATAN  
*HEALTH RESEARCH ETHICS COMMITTEE*  
SEKOLAH TINGGI ILMU KESEHATAN BAKTI TUNAS HUSADA TASIKMALAYA  
*STIKES BTH*

**KETERANGAN LAYAK ETIK**  
*DESCRIPTION OF ETHICAL EXEMPTION*  
"ETHICAL EXEMPTION"

No.015/kepk-bth/III/2021

Protokol penelitian yang diusulkan oleh :  
*The research protocol proposed by*

**Peneliti utama** : Reja Fauzi  
*Principal In Investigator*

**Nama Institusi** : STIKes Bakti Tunas Husada Tasikmalaya  
*Name of the Institution*

Dengan judul  
*Title*

**"UJI EFEKTIVITAS SEDIAAN GEL MINYAK ATSIRI DAUN KIRINYUH (*Chromolaena odorata* L.)  
TERHADAP PENYEMBUHAN LUKA BAKAR PADA TIKUS PUTIH JANTAN GALUR WISTAR"**

Penelitian ini, yang dalam pelaksanaannya menggunakan hewan coba, dinyatakan layak etik setelah melalui kajian yang mendalam. Komisi Etik Penelitian Kesehatan, Sekolah Tinggi Bakti Tunas Husada Tasikmalaya menyetujui dan mengizinkan pelaksanaan penelitian tersebut.

*This study, which uses experimental animals, was declared ethically feasible after a thorough study Health Research Ethics Committee, Bakti Tunas Husada Tasikmalaya Health Science College approved and permitted the implementation of the research*

Pernyataan Laik Etik ini berlaku selama kurun waktu tanggal 20 Maret 2021 sampai dengan tanggal 20 Maret 2022.  
*This declaration of ethics applies during the period March 20, 2021 until March 20, 2022.*



**LAMPIRAN 3**  
**KETERANGAN IDENTITAS HEWAN**



**ALLUNNA MOUSE FARM**  
Jl. Cihaurbeuti No. 15, Sukamulya, Ciamis  
Telp. 089655954125

**SURAT KETERANGAN IDENTITAS HEWAN**

No. 12033/ /AMF/2021

Peternakan hewan Allunna Mouse Farm dengan ini menyatakan bahwa identitas hewan uji miliki :

Nama : Reza Fauzi  
NIM : 31117133  
Instansi : STIKes Bakti Tunas Husada

Memiliki jenis hewan sebagai berikut:

No.	Jenis Hewan	Breed	Jumlah	Jenis Kelamin	Bobot/Umur
1.	Tikus	Wistar	30 ekor	Jantan	200-220 gram / 3-4 bulan

Demikian surat keterangan ini dibuat dan untuk digunakan sebagaimana mestinya.

Ciamis, 01 Januari 2021  
Owner Allunna Mouse Farm

Gun Gun Gunawan

**LAMPIRAN 4**  
**RANDEMEN, DESTILASI DAN IDENTIFIKASI GC-MS MINYAK**  
**ATSIRI**




**1. Perhitungan Randemen**

Berat daun kirinyuh = 20000 gram

Berat minyak = 60 mL

Jadi randemen minyak atsiri daun kirinyuh =  $\frac{60}{20000} \times 100\% = 0,3\%$

**2. Destilasi Minyak Atsiri Daun Kirinyuh Menggunakan Metode Destilasi Uap Air**

No.	Proses	Keterangan
1.		Alat yang digunakan untuk destilasi minyak atsiri daun kirinyuh dengan metode uap air
2.		Proses destilasi minyak atsiri daun kirinyuh
3.		Hasil minyak atsiri daun kirinyuh yang didapatkan

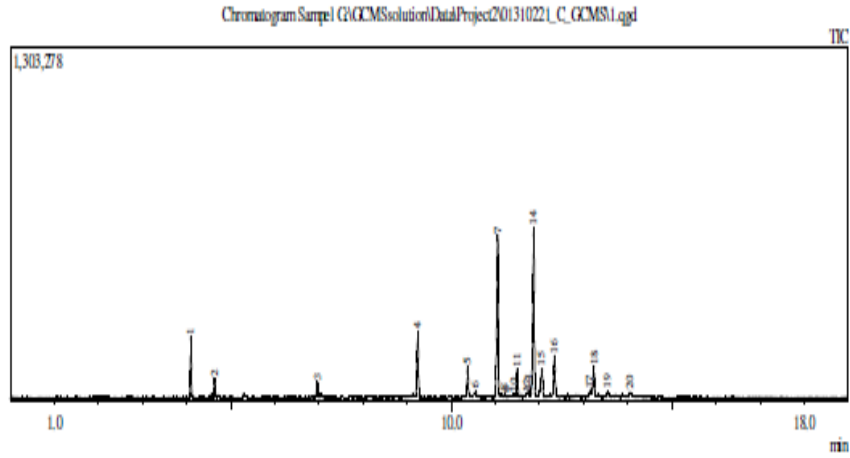
# LAMPIRAN 5

## HASIL GC-MS MINYAK ATSIRI DAUN KIRINYUH

### HASIL GC

Sample Information

Analyzed by : Admin  
 Analyzed : 3/1/2021 2:09:41 PM  
 Sample Name : Sampel  
 Sample ID : 1  
 Injection Volume : 0.10  
 Data File : C:\GCMSsolution\Data\Project201310221\_C\_GCMS1.gcd  
 Tuning File : C:\GCMSsolution\System1\Tune\1 Tuning 17 Des 2020.gct



Peak#	R.Time	L.Time	F.Time	Area	Area%	Height
1	4.094	4.050	4.140	339521	5.86	228278
2	4.638	4.600	4.680	114992	1.98	69438
3	6.960	6.920	6.995	107805	1.86	58434
4	9.242	9.165	9.295	540244	9.32	241343
5	10.374	10.320	10.415	224921	3.88	114264
6	10.560	10.475	10.595	74068	1.28	22181
7	11.053	10.965	11.105	1389834	23.97	603684
8	11.210	11.170	11.260	35352	0.61	13916
9	11.285	11.260	11.390	32519	0.56	5940
10	11.423	11.390	11.450	34863	0.60	16244
11	11.494	11.450	11.550	227959	3.93	106210
12	11.710	11.630	11.730	37498	0.65	13449
13	11.754	11.730	11.795	59208	1.02	23592
14	11.874	11.795	11.925	1437764	24.80	630210
15	12.057	11.925	12.115	343611	5.93	107007
16	12.343	12.270	12.415	369936	6.38	153434
17	13.154	13.115	13.175	53299	0.92	24423
18	13.235	13.175	13.285	286574	4.94	113795
19	13.554	13.515	13.600	42140	0.73	19538
20	14.052	14.020	14.110	45471	0.78	15525
				5797579	100.00	2580905

# HASIL MS

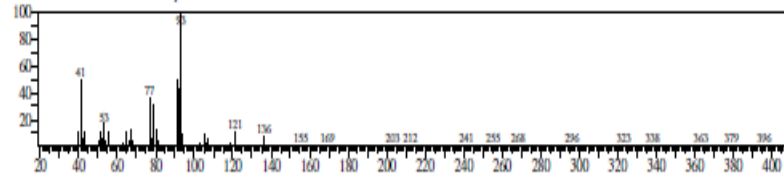
Library

<< Target >>

Line# 1 R.Time:4.095(Scan#:820) MassPeaks:228

RawMode:Averaged 4.090-4.100(819-821) BasePeak:93.05(41331)

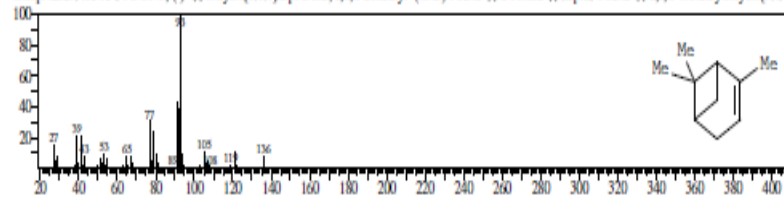
BG Mode:Calc. from Peak Group 1 - Event 1



Hit#1 Entry:26444 Library:WILEY7.LIB

SE94 Formula:C10H16 CAS:80-56-8 MolWeight:136 RetIndex:0

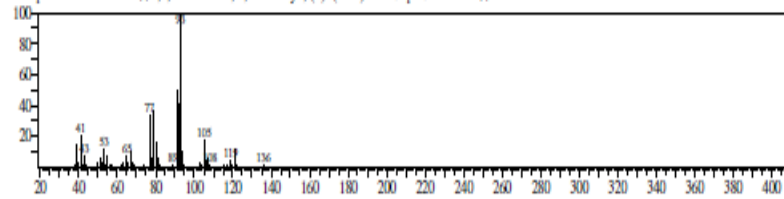
CompName: ALPHA-PINENE, (-)- Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl- (CAS) Pinene SS 2-Pinene SS alpha-Pinene SS 2,6,6-Trimethylbicyclo[3.1.1]



Hit#2 Entry:26174 Library:WILEY7.LIB

SE94 Formula:C10H16 CAS:6874-10-8 MolWeight:136 RetIndex:0

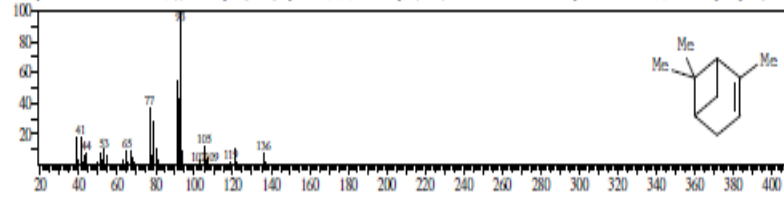
CompName: cis-OCIMENE SS 1,3,7-Octatriene, 3,7-dimethyl-, (E)- (CAS) trans-alpha-OCimene SS



Hit#3 Entry:26449 Library:WILEY7.LIB

SE94 Formula:C10H16 CAS:80-56-8 MolWeight:136 RetIndex:0

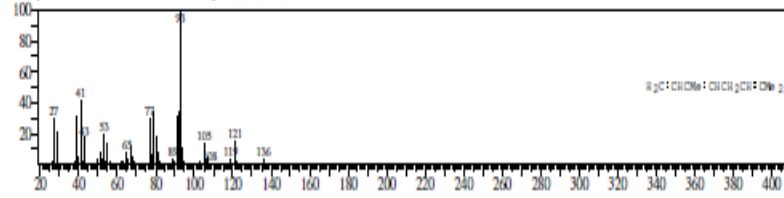
CompName: ALPHA-PINENE, (-)- Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl- (CAS) Pinene SS 2-Pinene SS alpha-Pinene SS 2,6,6-Trimethylbicyclo[3.1.1]



Hit#4 Entry:26153 Library:WILEY7.LIB










SE94 Formula:C10H16 CAS:3779-61-1 MolWeight:136 RetIndex:0

CompName: 1,3,6-Octatriene, 3,7-dimethyl-, (E)- (CAS) BETA-OCIMENE Y SS trans-beta-OCimene SS beta-trans-OCimene SS Ocimene, trans-beta- SS trans-





**LAMPIRAN 6**  
**EVALUASI GEL**

<b>Evaluasi</b>	<b>Formula 1</b>	<b>Formula 2</b>	<b>Formula 3</b>
<b>Organoleptis</b>			
<b>Daya Sebar</b>			
<b>Homogenitas</b>			

# pH








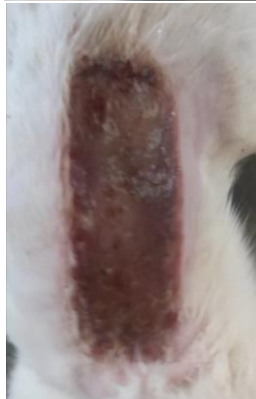
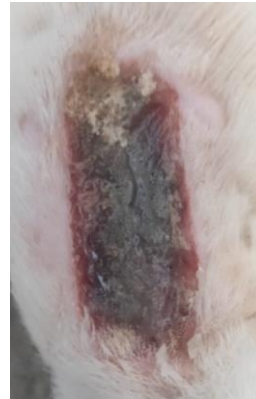








# Viskositas





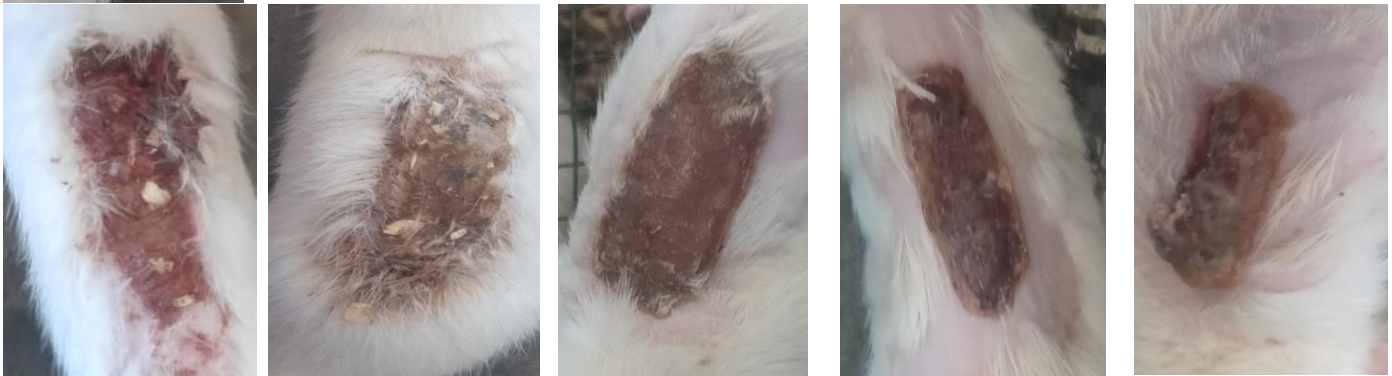
**LAMPIRAN 7**  
**PENGAMATAN LUKA**

Day	Kontrol Negatif	Kontrol Positif	Dosis Uji 1	Dosis Uji 2	Dosis Uji 3
0					
3					
6					

9



12



15



18



21



**LAMPIRAN 8**  
**HASIL PENGAMATAN PENYEMBUHAN LUKA**

<b>Kelompok</b>	<b>Hari ke-</b>	<b>Tikus 1 L (cm)</b>	<b>Tikus 2 L (cm)</b>	<b>Tikus 3 L (cm)</b>	<b>Tikus 4 L (cm)</b>	<b>Tikus 5 L (cm)</b>
<b>Kontrol Negatif</b>	<b>0</b>	8	8	8	8	8
	<b>3</b>	7.55	7.35	7.33	7.25	7.24
	<b>6</b>	7.23	7.16	7.18	7.22	7.16
	<b>9</b>	7.1	7.01	7.16	7.08	7.03
	<b>12</b>	7.02	6.88	7.08	7.05	7.03
	<b>15</b>	6.82	6.78	6.97	6.97	6.89
	<b>18</b>	6.67	6.54	6.8	6.86	6.75
	<b>21</b>	6.18	6.27	6.37	6.27	6.08
<b>Rataan ± SD</b>		7.07±0.55	6.99±0.53	7.11±0.46	7.09±0.48	7.02±0.53
<b>Kontrol Positif</b>	<b>0</b>	8	8	8	8	8
	<b>3</b>	6.85	6.71	6.97	6.9	7.03
	<b>6</b>	6.62	6.45	6.77	6.62	6.67
	<b>9</b>	6.5	6.18	6.43	6.4	6.43
	<b>12</b>	6.19	5.99	6.26	6.15	6.11
	<b>15</b>	6.13	5.99	6.2	6	6.08
	<b>18</b>	5.4	5.29	5.51	5.3	5.37
	<b>21</b>	4.5	4.16	4.9	4.45	4.83
<b>Rataan ± SD</b>		6.27±1.03	6.10±1.10	6.38±0.93	6.23±1.06	6.31±0.98
<b>Dosis Uji 1</b>	<b>0</b>	8	8	8	8	8
	<b>3</b>	7.66	7.59	7.39	7.31	7.27
	<b>6</b>	7.33	7.39	7.26	7.16	7.27
	<b>9</b>	7.01	7.07	6.99	6.97	7.12
	<b>12</b>	6.99	6.93	6.84	6.82	6.85
	<b>15</b>	6.64	6.69	6.55	6.63	6.63
	<b>18</b>	6.21	6.4	6.42	6.29	6.23
	<b>21</b>	5.85	5.94	5.99	6.02	6.05
<b>Rataan ± SD</b>		6.96±0.72	6.86±0.66	6.93±0.63	6.9±0.62	6.93±0.63
<b>Dosis Uji 2</b>	<b>0</b>	8	8	8	8	8
	<b>3</b>	7.15	7.43	7.33	7.22	7.12
	<b>6</b>	7.07	6.82	6.95	7.14	7.03
	<b>9</b>	6.94	6.81	6.71	6.95	6.75
	<b>12</b>	6.49	6.62	6.63	6.63	6.71
	<b>15</b>	5.97	6.45	6.56	6.56	6.58
	<b>18</b>	6.12	6.16	6.41	6.14	5.94
	<b>21</b>	5.79	5.86	5.97	5.84	5.8
<b>Rataan ± SD</b>		6.69±0.74	6.77±0.68	6.82±0.62	6.81±0.67	6.74±0.69

<b>Kelompok</b>	<b>Hari ke-</b>	<b>Tikus 1 L (cm)</b>	<b>Tikus 2 L (cm)</b>	<b>Tikus 3 L (cm)</b>	<b>Tikus 4 L (cm)</b>	<b>Tikus 5 L (cm)</b>
	<b>0</b>	8	8	8	8	8
<b>Dosis Uji 3</b>	<b>3</b>	7.02	6.81	6.75	7.08	7.01
	<b>6</b>	6.48	6.73	6.44	6.89	6.82
	<b>9</b>	6.27	6.46	6.26	6.5	6.45
	<b>12</b>	5.99	6.26	6.17	6.37	6.21
	<b>15</b>	5.93	5.44	6.03	6.37	6.16
	<b>18</b>	5.54	5.03	5.46	5.51	5.79
	<b>21</b>	3.9	4.65	3.66	4.22	3.93
<b>Rataan ± SD</b>		6.14±1.18	6.17±1.09	6.1±1.23	6.37±1.12	6.3±1.170

**LAMPIRAN 9**  
**HASIL PERSENTASE PENYEMBUHAN LUKA**

Kelompok	Persentase Luka %					
	Hari Ke-	Tikus 1	Tikus 2	Tikus 3	Tikus 4	Tikus 5
<b>Kontrol Negatif</b>	0	0	0	0	0	0
	3	5.63	8.13	8.38	9.38	9.5
	6	9.63	10.5	10.25	9.75	10.5
	9	11.25	12.38	10.5	11.5	12.13
	12	12.3	14	11.5	11.88	12.13
	15	14.75	15.25	12.88	12.88	13.88
	18	16.63	18.25	15	14.25	15.63
	21	22.75	21.63	20.36	21.63	24
	<b>Rataan ± SD</b>	11.62±6.91	12.52±6.61	11.11±5.81	11.41±6	12.22±6.69
<b>Kontrol Positif</b>	0	0	0	0	0	0
	3	14.38	16.13	12.88	13.75	12.13
	6	17.25	19.38	15.38	17.25	16.63
	9	18.75	22.75	19.63	20	19.63
	12	22.63	25.13	21.75	23.13	23.63
	15	23.38	25.13	22.44	25	24
	18	32.5	33.88	31.13	33.75	32.88
	21	43.75	48	38.75	44.37	39.63
	<b>Rataan ± SD</b>	21.58±12.87	23.8±13.82	20.25±11.69	22.16±13.24	21.07±12.22
<b>Dosis Uji I</b>	0	0	0	0	0	0
	3	4.25	5.13	7.63	8.63	9.13
	6	8.38	7.63	9.25	10.5	9.13
	9	12.38	11.63	12.63	12.88	11
	12	12.63	13.38	14.5	14.75	14.38
	15	17	16.38	18.13	17.13	17.13
	18	22.38	20	19.75	21.38	22.13
	21	26.88	25.75	25.13	24.75	24.33
	<b>Rataan ± SD</b>	12.99±8.98	12.49±8.30	13.38±7.86	13.75±7.73	13.4±7.86
<b>Dosis Uji II</b>	0	0	0	0	0	0
	3	10,75	7.125	8.38	9.75	11
	6	11.63	14.75	13.13	10.75	12.13
	9	13.25	14.88	16.13	13.13	15.63
	12	19.01	17.25	17.13	17.13	16.13
	15	25.38	19.38	18	18	17.75
	18	23.5	23	19.88	23.25	25.75
	21	28	26.75	25.38	27	27.5
	<b>Rataan ± SD</b>	17.2±10.82	15.39±8.55	14.75±7.73	14.88±8.45	15.74±8.67

Kelompok	Persentase Luka %					
	Hari Ke-	Tikus 1	Tikus 2	Tikus 3	Tikus 4	Tikus 5
Dosis Uji III	0	0	0	0	0	0
	3	12.25	14.88	15.63	11.5	12.38
	6	19	15.88	19.5	13.88	14.75
	9	21.75	19.25	21.75	18.75	19.38
	12	25.13	21.75	22.84	20.38	22.38
	15	25.88	31.99	24.66	20.38	23
	18	30.75	37.13	31.75	31.75	27.63
	21	51.25	41.88	54.25	47.25	50.88
<b>Rataan ± SD</b>		23.25±14.80	22.84±13.62	23.8±15.34	20.49±14.09	21.3±14.63



## LAMPIRAN 10 ANALISIS DATA

### 1. Uji Normalitas

**Tests of Normality**

	Kelompok	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Persentase	Kontrol Negatif	.206	5	.200 <sup>*</sup>	.949	5	.727
	Kontrol Positif	.186	5	.200 <sup>*</sup>	.967	5	.858
	Dosis Uji 1	.245	5	.200 <sup>*</sup>	.950	5	.737
	Dosis Uji 2	.240	5	.200 <sup>*</sup>	.872	5	.276
	Dosis Uji 3	.244	5	.200 <sup>*</sup>	.923	5	.552

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

### 2. Uji Homogenitas

**Test of Homogeneity of Variances**

Persentase

Levene Statistic	df1	df2	Sig.
2.012	4	20	.131

### 3. One Way ANOVA

**ANOVA**

Persentase

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	474.716	4	118.679	113.172	.000
Within Groups	20.973	20	1.049		
Total	495.689	24			

#### 4. LSD

#### Multiple Comparisons

Dependent Variable: Persentase

LSD

(I) Kelompok	(J) Kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Kontrol Negatif	Kontrol Positif	-9.99600 <sup>*</sup>	.64766	.000	-11.3470	-8.6450
	Dosis Uji 1	-1.42600 <sup>*</sup>	.64766	.040	-2.7770	-.0750
	Dosis Uji 2	-3.81600 <sup>*</sup>	.64766	.000	-5.1670	-2.4650
	Dosis Uji 3	-10.56200 <sup>*</sup>	.64766	.000	-11.9130	-9.2110
Kontrol Positif	Kontrol Negatif	9.99600 <sup>*</sup>	.64766	.000	8.6450	11.3470
	Dosis Uji 1	8.57000 <sup>*</sup>	.64766	.000	7.2190	9.9210
	Dosis Uji 2	6.18000 <sup>*</sup>	.64766	.000	4.8290	7.5310
	Dosis Uji 3	-.56600	.64766	.393	-1.9170	.7850
Dosis Uji 1	Kontrol Negatif	1.42600 <sup>*</sup>	.64766	.040	.0750	2.7770
	Kontrol Positif	-8.57000 <sup>*</sup>	.64766	.000	-9.9210	-7.2190
	Dosis Uji 2	-2.39000 <sup>*</sup>	.64766	.001	-3.7410	-1.0390
	Dosis Uji 3	-9.13600 <sup>*</sup>	.64766	.000	-10.4870	-7.7850
Dosis Uji 2	Kontrol Negatif	3.81600 <sup>*</sup>	.64766	.000	2.4650	5.1670
	Kontrol Positif	-6.18000 <sup>*</sup>	.64766	.000	-7.5310	-4.8290
	Dosis Uji 1	2.39000 <sup>*</sup>	.64766	.001	1.0390	3.7410
	Dosis Uji 3	-6.74600 <sup>*</sup>	.64766	.000	-8.0970	-5.3950
Dosis Uji 3	Kontrol Negatif	10.56200 <sup>*</sup>	.64766	.000	9.2110	11.9130
	Kontrol Positif	.56600	.64766	.393	-.7850	1.9170
	Dosis Uji 1	9.13600 <sup>*</sup>	.64766	.000	7.7850	10.4870
	Dosis Uji 2	6.74600 <sup>*</sup>	.64766	.000	5.3950	8.0970

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

# LAMPIRAN 11

## HISTOPATOLOGI

Laboratorium Mikroteknik Hewan  
Departemen Biologi  
Fakultas Matematika Dan Ilmu Pengetahuan Alam  
Universitas Padjadjaran

### LAPORAN ANALISIS HISTOLOGI

Jenis Sampel : Organ Kulit  
Pengirim : Aprilia NR dan Reza Fauzi (Prodi Farmasi STIKES BTH Tasikmalaya)  
Metode : Metode Paraffin dengan pewarnaan HE  
Analisis Uji : Kualitatif

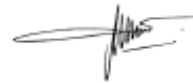
#### Hasil Analisis Data

Aprilia				
Sampel	Epidermis		Dermis	
	Epidermis	Epitelisasi	Infiltrasi Sel Radang	Kapilerisasi
K (+)	Lesi Minor	Normal	Setempat	Setempat
K (-)	Lesi Minor	Penebalan	Merata	Setempat
1	Normal	Normal	Setempat	Setempat
2	Lesi Minor	Normal	Setempat	Setempat
3	Lesi Minor	Normal	Merata	Setempat

Reza Fauzi				
Sampel	Epidermis		Dermis	
	Epidermis	Epitelisasi	Infiltrasi Sel Radang	Kapilerisasi
D1	Lesi Minor	Normal	Setempat	Setempat
D2	Normal	Normal	Setempat	Setempat
D3	Lesi Minor	Normal	Setempat	Setempat

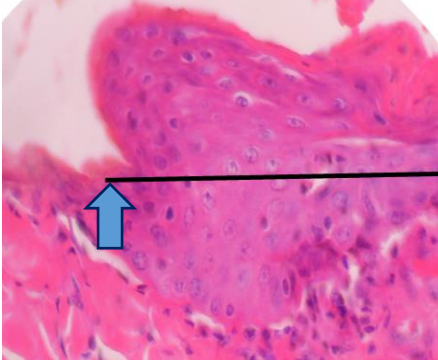
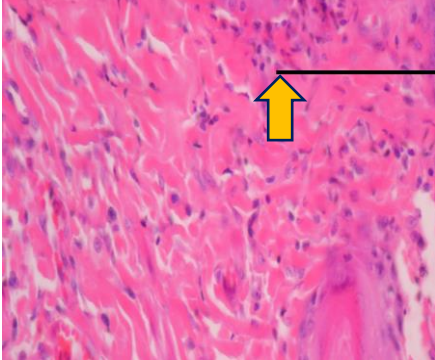
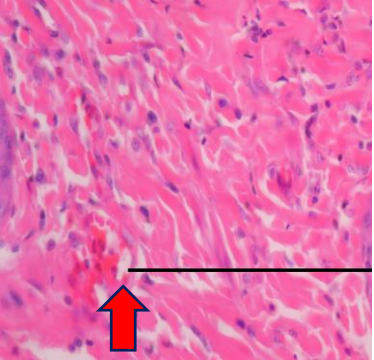
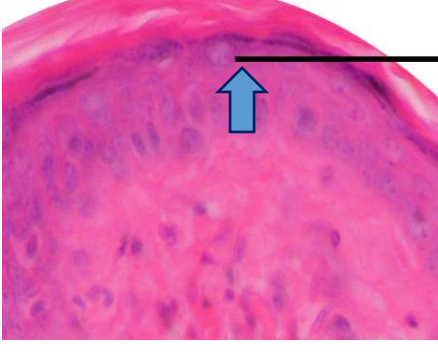
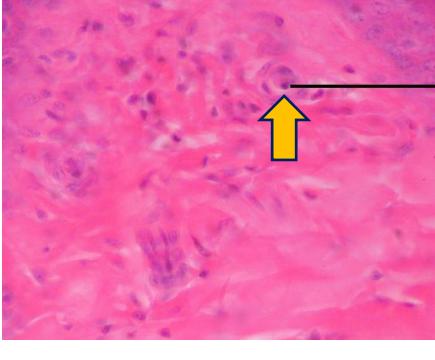
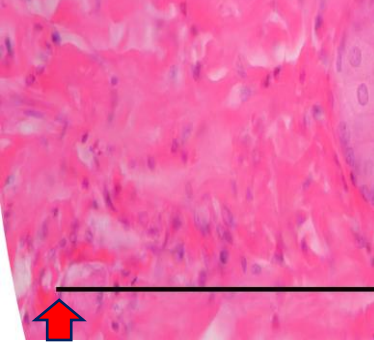
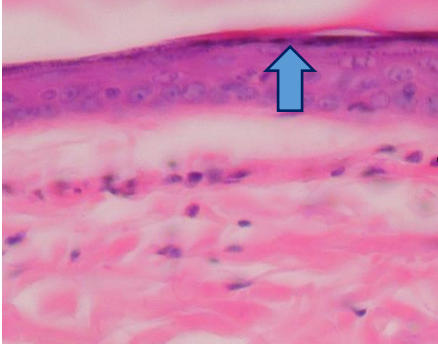
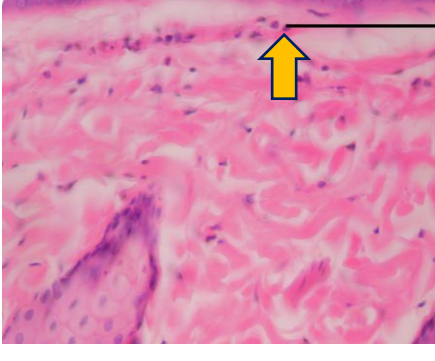
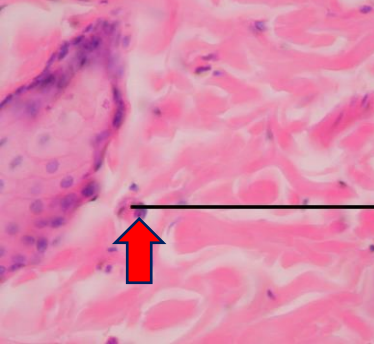
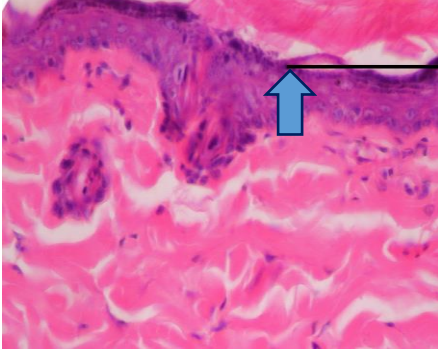
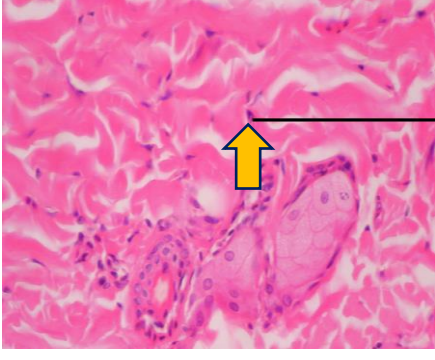
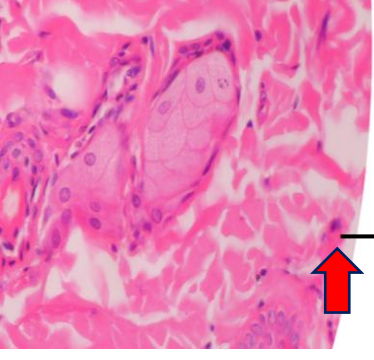
Pustaka:  
Greaves, P. 2012. *Histopathology of Preclinical Toxicity Studies. Interpretation and Relevance in Drug Safety Evaluation*. 4<sup>th</sup> Edition. Elsevier.  
Haschek, W.M., Wallig, M.A. and Rousseaux, C. 2010. *Fundamentals of Toxicologic Pathology*. 2nd Ed. Elsevier.  
Damjanov, I. and McCus, P.A. 2000. *Histopatologi*. Widya Medika

Bandung, 2 Juni 2021  
Analisis

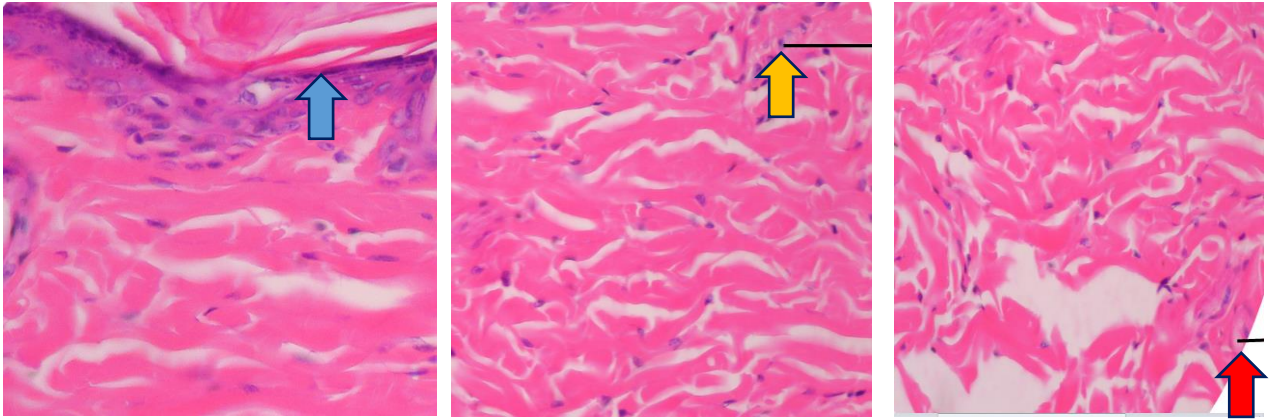


Deden Deni, S.Si., M.T

**HASIL HISTOPATOLOGI KULIT LUKA BAKAR  
PADA HARI KE 21**

Kelompok	Epitelisasi	Infiltrasi Sel Radang	Kapilerisasi
Kontrol Negatif			
Kontrol Positif			
F1			
F2			

F3



Keterangan



: Epitelisasi



: Kapilerisasi



: Infiltrasi sel radang