

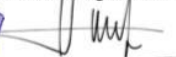


## LAMPIRAN

### Lampiran 1. *Ethical Clearance*

 <b>KOMISI ETIK PENELITIAN KESEHATAN FAKULTAS KEDOKTERAN GIGI UNIVERSITAS ISLAM SULTAN AGUNG</b> <small>Sekretariat: Fakultas Kedokteran Gigi UNISSULA Jl. Raya Kaligawe Km.04 Semarang 50112 Telp. (024) 6583584, Fax 024-6594366</small>	
<b>KETERANGAN LOLOS KAJI ETIK</b> <b>DESCRIPTION OF ETHICAL APPROVAL</b> <b>"ETHICAL APPROVAL"</b> No. 239/B.1-KEPK/SA-FKG/X/2020	
Protokol penelitian yang diusulkan oleh : <i>The research protocol proposed by</i>	
Peneliti utama <i>Principal In Investigator</i>	: SINTA HERNINGTIYAS
Pembimbing <i>Supervisor</i>	: 1. drg. Rosa Pratiwi, Sp. Perio 2. drg. Ninuk Sumaryati, M.kes
Nama Institusi <i>Name of the Institution</i>	: FAKULTAS KEDOKTERAN GIGI UNISSULA
Tempat Penelitian <i>Research Place</i>	: 1. UPT LABORATORIUM TERPADU UNIVERSITAS DIPONEGORO 2. LABORATORIUM MIKROBIOLOGI FAKULTAS KEDOKTERAN UNIVERSITAS DIPONEGORO 3. LABORATORIUM GAKI FAKULTAS KEDOKTERAN UNIVERSITAS DIPONEGORO
Dengan Judul <i>Title</i>	: <b>EFEKTIVITAS NANOEMULSI GEL DAUN SIRIH MERAH (<i>Piper crocatum</i>) TERHADAP PENURUNAN KETEBALAN BIOFILM BAKTERI <i>Staphylococcus aureus</i> (<i>IN VITRO</i>)</b>
Dinyatakan layak etik sesuai 7 (tujuh) Standar WHO 2011, yaitu: 1) Nilai Sosial, 2) Nilai Ilmiah, 3) Pemerataan Beban dan Manfaat, 4) Risiko, 5) Bujukan / Eksploitasi, 6) Kerahasiaan dan Privacy, dan 7) Persetujuan Setelah Penjelasan, yang merujuk pada Pedoman CIOMS 2016. Hal ini seperti yang ditunjukkan oleh terpenuhinya indicator setiap standar.	
<i>Declared to be ethically appropriate in accordance to 7 (seven) WHO 2011 Standards : 1) Social Values, 2) Scientific Values, 3) Equitable Assessment and Benefits, 4) Risks, 5) Persuasion /</i>	
<i>Guidelines This is as indicated by the fulfillment of the indicators of each standard.</i>	
Pernyataan Laik Etik ini berlaku selama kurun waktu tanggal 1 Oktober 2020 sampai dengan tanggal 1 Oktober 2021.	
<i>This declaration of ethics applies during the period October 1, 2020 until October 1, 2021.</i>	
Mengetahui, Wakil Dekan I	Semarang, 19 Oktober 2020 Ketua Komisi Etik Penelitian Kesehatan Fakultas Kedokteran Gigi UNISSULA
 Dr. drg. Yayun Siti Rochmah, Sp. BM NIK. 210100058	 Dr. Drg. Sandy Christiono, Sp. KGA NIK. 1010012

## Lampiran 2. Hasil analisis SPSS

### Descriptives

		Statistic	Std. Error	
formulasi 15% inkubasi 4 jam	Mean	3,63467	,048375	
	95% Confidence Interval for Mean	Lower Bound	3,42653	
		Upper Bound	3,84281	
	5% Trimmed Mean	.		
	Median	3,67000		
	Variance	,007		
	Std. Deviation	,083787		
	Minimum	3,539		
	Maximum	3,695		
	Range	,156		
	Interquartile Range	.		
	Skewness	-1,560	1,225	
	Kurtosis	.	.	
	formulasi 15% inkubasi 8 jam	Mean	3,64633	,105251
95% Confidence Interval for Mean		Lower Bound	3,19347	
		Upper Bound	4,09919	
5% Trimmed Mean		.		
Median		3,61300		
Variance		,033		
Std. Deviation		,182300		
Minimum		3,483		
Maximum		3,843		
Range		,360		
Interquartile Range		.		
Skewness		,795	1,225	
Kurtosis		.	.	
formulasi 25% inkubasi 4 jam		Mean	3,57567	,006173
	95% Confidence Interval for Mean	Lower Bound	3,54910	
		Upper Bound	3,60223	
	5% Trimmed Mean	.		
	Median	3,57800		
	Variance	,000		
	Std. Deviation	,010693		

	Minimum		3,564	
	Maximum		3,585	
	Range		,021	
	Interquartile Range		.	
	Skewness		-,935	1,225
	Kurtosis		.	.
formulasi 25% inkubasi 8 jam	Mean		3,62133	,107865
	95% Confidence Interval for Lower Bound		3,15723	
	Mean Upper Bound		4,08544	
	5% Trimmed Mean		.	
	Median		3,64700	
	Variance		,035	
	Std. Deviation		,186827	
	Minimum		3,423	
	Maximum		3,794	
	Range		,371	
	Interquartile Range		.	
	Skewness		-,607	1,225
	Kurtosis		.	.
formulasi 50% inkubasi 4 jam	Mean		3,49400	,030447
	95% Confidence Interval for Lower Bound		3,36300	
	Mean Upper Bound		3,62500	
	5% Trimmed Mean		.	
	Median		3,51500	
	Variance		,003	
	Std. Deviation		,052735	
	Minimum		3,434	
	Maximum		3,533	
	Range		,099	
	Interquartile Range		.	
	Skewness		-1,508	1,225
	Kurtosis		.	.
formulasi 50% inkubasi 8 jam	Mean		3,57333	,100257
	95% Confidence Interval for Lower Bound		3,14196	
	Mean Upper Bound		4,00470	
	5% Trimmed Mean		.	
	Median		3,56500	

	Variance		,030	
	Std. Deviation		,173650	
	Minimum		3,404	
	Maximum		3,751	
	Range		,347	
	Interquartile Range		.	
	Skewness		,215	1,225
	Kurtosis		.	.
kontrol positif inkubasi 4 jam	Mean		3,58267	,047337
	95% Confidence Interval for Mean	Lower Bound	3,37899	
		Upper Bound	3,78634	
	5% Trimmed Mean		.	
	Median		3,60800	
	Variance		,007	
	Std. Deviation		,081990	
	Minimum		3,491	
	Maximum		3,649	
	Range		,158	
	Interquartile Range		.	
	Skewness		-1,258	1,225
	Kurtosis		.	.
kontrol positif inkubasi 8 jam	Mean		3,59867	,097023
	95% Confidence Interval for Mean	Lower Bound	3,18121	
		Upper Bound	4,01612	
	5% Trimmed Mean		.	
	Median		3,55900	
	Variance		,028	
	Std. Deviation		,168049	
	Minimum		3,454	
	Maximum		3,783	
	Range		,329	
	Interquartile Range		.	
	Skewness		1,003	1,225
	Kurtosis		.	.
kontrol negatif inkubasi 4 jam	Mean		3,62833	,022806
	95% Confidence Interval for Mean	Lower Bound	3,53021	
		Upper Bound	3,72646	

	5% Trimmed Mean	.	.
	Median	3,62800	.
	Variance	,002	.
	Std. Deviation	,039501	.
	Minimum	3,589	.
	Maximum	3,668	.
	Range	,079	.
	Interquartile Range	.	.
	Skewness	,038	1,225
	Kurtosis	.	.
kontrol negatif inkubasi 8 jam	Mean	3,68067	,033193
	95% Confidence Interval for Mean	Lower Bound	3,53785
		Upper Bound	3,82348
	5% Trimmed Mean	.	.
	Median	3,67200	.
	Variance	,003	.
	Std. Deviation	,057492	.
	Minimum	3,628	.
	Maximum	3,742	.
	Range	,114	.
	Interquartile Range	.	.
	Skewness	,663	1,225
	Kurtosis	.	.

#### Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
formulasi 15% inkubasi 4 jam	,330	3	.	,867	3	,286
formulasi 15% inkubasi 8 jam	,239	3	.	,975	3	,696
formulasi 25% inkubasi 4 jam	,253	3	.	,964	3	,637
formulasi 25% inkubasi 8 jam	,221	3	.	,986	3	,772

formulasi 50% inkubasi 4 jam	,321	3	.	,881	3	,328
formulasi 50% inkubasi 8 jam	,186	3	.	,998	3	,921
kontrol positif inkubasi 4 jam	,288	3	.	,928	3	,483
kontrol positif inkubasi 8 jam	,260	3	.	,958	3	,607
kontrol negatif inkubasi 4 jam	,176	3	.	1,000	3	,986
kontrol negatif inkubasi 8 jam	,227	3	.	,983	3	,750

a. Lilliefors Significance Correction

#### Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
ketebalan biofilm	Based on Mean	,608	4	25	,661
	Based on Median	,567	4	25	,689
	Based on Median and with adjusted df	,567	4	20,473	,689
	Based on trimmed mean	,602	4	25	,665

#### ANOVA

ketebalan biofilm

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,054	4	,014	1,081	,387
Within Groups	,313	25	,013		
Total	,368	29			

#### Multiple Comparisons

Dependent Variable: ketebalan biofilm

LSD

(I) perlakuan	(J) perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
formulasi 15%	formulasi 25%	,042000	,064636	,522	-,09112	,17512
	formulasi 50%	,106833	,064636	,111	-,02629	,23995
	kontrol positif	,049833	,064636	,448	-,08329	,18295
	kontrol negatif	-,014000	,064636	,830	-,14712	,11912
formulasi 25%	formulasi 15%	-,042000	,064636	,522	-,17512	,09112

	formulasi 50%	,064833	,064636	,325	-,06829	,19795
	kontrol positif	,007833	,064636	,905	-,12529	,14095
	kontrol negatif	-,056000	,064636	,395	-,18912	,07712
formulasi 50%	formulasi 15%	-,106833	,064636	,111	-,23995	,02629
	formulasi 25%	-,064833	,064636	,325	-,19795	,06829
	kontrol positif	-,057000	,064636	,386	-,19012	,07612
	kontrol negatif	-,120833	,064636	,073	-,25395	,01229
kontrol positif	formulasi 15%	-,049833	,064636	,448	-,18295	,08329
	formulasi 25%	-,007833	,064636	,905	-,14095	,12529
	formulasi 50%	,057000	,064636	,386	-,07612	,19012
	kontrol negatif	-,063833	,064636	,333	-,19695	,06929
kontrol negatif	formulasi 15%	,014000	,064636	,830	-,11912	,14712
	formulasi 25%	,056000	,064636	,395	-,07712	,18912
	formulasi 50%	,120833	,064636	,073	-,01229	,25395
	kontrol positif	,063833	,064636	,333	-,06929	,19695



### Lampiran 3. Surat keterangan selesai penelitian Lab Bionano Teknologi



KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN  
**UNIVERSITAS DIPONEGORO**  
 LABORATORIUM BIONANO TEKNOLOGI  
 UPT Laboratorium Terpadu  
 Jl. Prof Soedarto, Tembalang, Semarang, Jawa Tengah  
 Telp : 087834961226

---

SURAT KETERANGAN MELAKSANAKAN PENELITIAN

Kepala Laboratorium Bionano Teknologi dengan ini menerangkan bahwa :

Nama : Sinta Herningtiyas

NIM : 31101700077

Program Studi : Pendidikan Dokter Gigi

Fakultas : Kedokteran Gigi

Instansi : Universitas Islam Sultan Agung

Dengan ini menerangkan bahwa yang tersebut di atas telah melakukan penelitian di Laboratorium Bionano Teknologi Universitas Diponegoro pada tanggal 13 Oktober – 13 November 2020, dengan judul “ **EFEKTIVITAS NANOEMULSI GEL DAUN SIRIH MERAH (*Piper crocatum*) TERHADAP PENURUNAN KETEBALAN BIOFILM BAKTERI *Staphylococcus aureus* (IN VITRO)**

Demikian surat ini dibuat agar dapat digunakan sebagaimana mestinya.

Semarang, 16 November 2020  
 Kepala Lab Bionano Teknologi  
 Universitas Diponegoro

Dr. Agus Subagio, M.Si

## Lampiran 4. Surat keterangan selesai penelitian Lab Mikrobiologi



KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN  
**UNIVERSITAS DIPONEGORO**  
**FAKULTAS KEDOKTERAN**  
**BAGIAN MIKROBIOLOGI**

Jalan Prof. Sudarto, S.H.,  
 Tembalang, Semarang 50275  
 Tel. (024) 76928010/Faks. (024)76928011  
 www.fk.undip.ac.id | email: dean@fk.undip.ac.id

### SURAT KETERANGAN

Nomor : 83/UN.7.5.4/Mikrobiologi/dok/11/2020

Yang bertanda tangan dibawah ini, menerangkan bahwa mahasiswa dengan :

Nama : Sinta Herningtiyas  
 Nim : 31101700077  
 Fakultas : Kedokteran Gigi  
 Perguruan Tinggi : Universitas Islam Sultan Agung  
 Judul Skripsi : Efektivitas Nanoemulsi Gel Daun Sirih Merah ( *Piper crocatum* )  
 Terhadap Penurunan Ketebalan Biofilm Bakteri *Staphylococcus aureus* ( *in Vitro* )  
 Telah melakukan penelitian di Laboratorium Mikrobiologi Fakultas Kedokteran Universitas  
 Diponegoro pada bulan November 2020 untuk digunakan dalam penelitian skripsi.

Demikian surat keterangan ini dibuat untuk digunakan sebagaimana mestinya.

Semarang, 30 November 2020  
 Ketua  
 Bagian Mikrobiologi FK UNDIP

dr. Endang Sri Lestari, PhD  
 NIP 19661016 199702 2001

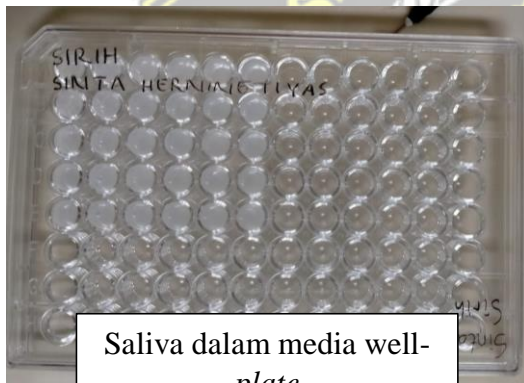
## Lampiran 5. Dokumentasi



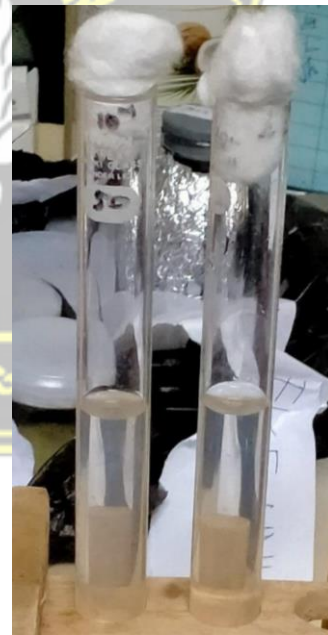
Suspensi daun sirih merah



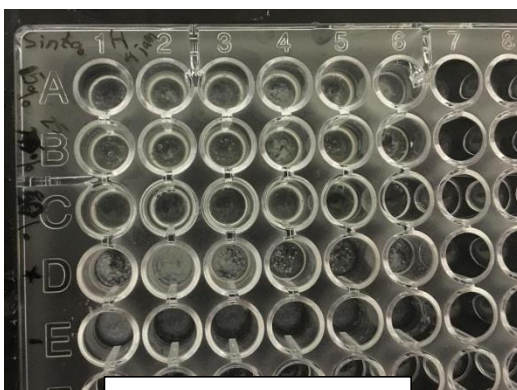
Formulasi nanoemulsi gel daun sirih merah berbagai konsentrasi



Saliva dalam media well-plate



Bakteri *Staphylococcus aureus*



Saliva yang telah di inkubasi suhu 37°C selama 48 jam



Hasil pewarnaan *crsytal violet*



Pembacaan dengan *ELISA - reader*



# KTI Sinta Herningtiyas

*by Darwin .*

---

**Submission date:** 18-Feb-2021 11:16PM (UTC-0800)

**Submission ID:** 1512922312

**File name:** KTI\_Sinta\_Herningtiyas.docx (2.2M)

**Word count:** 6613

**Character count:** 42127

## KTI Sinta Herningtiyas

### ORIGINALITY REPORT

**20%**

SIMILARITY INDEX

**19%**

INTERNET SOURCES

**5%**

PUBLICATIONS

**7%**

STUDENT PAPERS

### PRIMARY SOURCES

1	<a href="https://repository.ub.ac.id">repository.ub.ac.id</a> Internet Source	2%
2	<a href="https://123dok.com">123dok.com</a> Internet Source	2%
3	<a href="https://jurnal.unsyiah.ac.id">jurnal.unsyiah.ac.id</a> Internet Source	2%
4	<a href="https://www.scribd.com">www.scribd.com</a> Internet Source	1%
5	Submitted to Universitas Islam Indonesia Student Paper	1%
6	<a href="https://id.123dok.com">id.123dok.com</a> Internet Source	1%
7	<a href="https://ppjp.ulm.ac.id">ppjp.ulm.ac.id</a> Internet Source	1%
8	<a href="https://id.scribd.com">id.scribd.com</a> Internet Source	1%
9	<a href="https://repository.uinjkt.ac.id">repository.uinjkt.ac.id</a> Internet Source	1%

10	<a href="https://repository.usd.ac.id">repository.usd.ac.id</a> Internet Source	<1%
11	Submitted to Padjadjaran University Student Paper	<1%
12	<a href="https://mutiahayati.blogspot.com">mutiahayati.blogspot.com</a> Internet Source	<1%
13	Submitted to Universitas Indonesia Student Paper	<1%
14	<a href="https://fitrident.blogspot.com">fitrident.blogspot.com</a> Internet Source	<1%
15	<a href="https://es.scribd.com">es.scribd.com</a> Internet Source	<1%
16	<a href="https://refanggi.wordpress.com">refanggi.wordpress.com</a> Internet Source	<1%
17	<a href="https://www.coursehero.com">www.coursehero.com</a> Internet Source	<1%
18	<a href="https://kjif.unjani.ac.id">kjif.unjani.ac.id</a> Internet Source	<1%
19	<a href="https://repository.usu.ac.id">repository.usu.ac.id</a> Internet Source	<1%
20	<a href="https://dspace.uui.ac.id">dspace.uui.ac.id</a> Internet Source	<1%
21	<a href="https://core.ac.uk">core.ac.uk</a> Internet Source	<1%

---

22	Syaema Maulida, Yanuarita Tursinawati, Ardhea Jaludamascena. "Pengaruh Hepatokuratif Ekstrak Daun Kenikir ( <i>Cosmos caudatus</i> ) terhadap Kadar SGPT Tikus Wistar yang Diinduksi Parasetamol", <i>Herb-Medicine Journal</i> , 2020 Publication	<1%
23	<a href="https://pt.scribd.com">pt.scribd.com</a> Internet Source	<1%
24	<a href="https://download.garuda.ristekdikti.go.id">download.garuda.ristekdikti.go.id</a> Internet Source	<1%
25	Mayusef Sukmana, Dwi Nopriyanto, Alhawaris. "Irrigation Of Wounds with Red betel 20% And 40% to Bacterial Numbers In Diabetic Foot Infection (DFI) Patients", <i>Journal Of Nursing Practice</i> , 2020 Publication	<1%
26	<a href="https://scholar.unand.ac.id">scholar.unand.ac.id</a> Internet Source	<1%
27	<a href="https://fitrirosdiana.blogspot.com">fitrirosdiana.blogspot.com</a> Internet Source	<1%
28	Submitted to Universitas Jenderal Soedirman Student Paper	<1%
29	<a href="https://www.jurnal.unsyiah.ac.id">www.jurnal.unsyiah.ac.id</a> Internet Source	<1%

---

30	<a href="http://www.miftahulmuttaqin.com">www.miftahulmuttaqin.com</a> Internet Source	<1 %
31	Submitted to Sriwijaya University Student Paper	<1 %
32	<a href="http://journals.ums.ac.id">journals.ums.ac.id</a> Internet Source	<1 %
33	<a href="http://repository.maranatha.edu">repository.maranatha.edu</a> Internet Source	<1 %
34	<a href="http://perpustakaan.poltekkes-malang.ac.id">perpustakaan.poltekkes-malang.ac.id</a> Internet Source	<1 %
35	<a href="http://kesehatanpsiko.blogspot.com">kesehatanpsiko.blogspot.com</a> Internet Source	<1 %
36	Submitted to Sultan Agung Islamic University Student Paper	<1 %
37	<a href="http://repository.unhas.ac.id">repository.unhas.ac.id</a> Internet Source	<1 %
38	<a href="http://repository.unissula.ac.id">repository.unissula.ac.id</a> Internet Source	<1 %
39	<a href="http://jurnal.untan.ac.id">jurnal.untan.ac.id</a> Internet Source	<1 %
40	<a href="http://digilib.uinsby.ac.id">digilib.uinsby.ac.id</a> Internet Source	<1 %
41	<a href="http://brother-quiet.xyz">brother-quiet.xyz</a> Internet Source	<1 %

		<1%
42	<a href="https://www.docshare.tips">docshare.tips</a> Internet Source	<1%
43	<a href="https://academicjournal.yarsi.ac.id">academicjournal.yarsi.ac.id</a> Internet Source	<1%
44	<a href="https://www.slideshare.net">www.slideshare.net</a> Internet Source	<1%
45	<a href="https://jurnal.fk.unand.ac.id">jurnal.fk.unand.ac.id</a> Internet Source	<1%
46	<a href="https://arijeleq.blogspot.com">arijeleq.blogspot.com</a> Internet Source	<1%
47	Submitted to iGroup Student Paper	<1%
48	<a href="https://journal.uui.ac.id">journal.uui.ac.id</a> Internet Source	<1%
49	<a href="https://repository.upi.edu">repository.upi.edu</a> Internet Source	<1%
50	<a href="https://ejournal.unsrat.ac.id">ejournal.unsrat.ac.id</a> Internet Source	<1%
51	<a href="https://jurnal.unissula.ac.id">jurnal.unissula.ac.id</a> Internet Source	<1%
52	APRILIA MINDASARI. "Pengaruh pemberian	<1%

ekstrak etanol bunga Kamboja (*Plumeria rubra* L.) terhadap pertumbuhan bakteri *Shigella dysenteriae* dengan metode difusi sumur", Hang Tuah Medical journal, 2017

Publication

---

53	<a href="http://ojs.uho.ac.id">ojs.uho.ac.id</a> Internet Source	<1%
54	<a href="http://hes-gotappointment-newspaper.icu">hes-gotappointment-newspaper.icu</a> Internet Source	<1%
55	<a href="http://ikatanapotekerindonesia.net">ikatanapotekerindonesia.net</a> Internet Source	<1%
56	<a href="http://doczz.net">doczz.net</a> Internet Source	<1%
57	<a href="http://zombiedoc.com">zombiedoc.com</a> Internet Source	<1%

---

Exclude quotes On

Exclude matches < 5 words

Exclude bibliography On