LAMPIRAN

Lampiran 1 *Ethical Clearance* Penelitian

KOMISI BIOETIKA PENELITIAN KEDOKTERAN/KESEHATAN
FAKULTAS KEDOKTERAN
UNIVERSITAS ISLAM SULTAN AGUNG SEMARANG

Sekretariat : Gedung C Lantai I Fakultas Kedokteran Unissula
Jl. Raya Kaligawe Km 4 Semarang, Telp. 024-6583584, Fax 024-6594366

Ethical Clearance

No. 163/III/2018/Komisi Bioetik

Komisi Bioetika Penelitian Kedokteran/Kesehatan Fakultas Kedokteran Universitas Islam Sultan Agung Semarang, setelah melakukan pengkajian atas usulan penelitian yang berjudul :

PENGARUH KRIM EKSTRAK ETANOL DAUN SIRSAK
(*Annoma muricata*,Linn) TERHADAP EKSPRESI TNF-α DAN VEGF
Studi Pada Kulit Mencit BALB/c Yang Dipapar UVB Akut

Peneliti Utama : Agus Susanto
Pembimbing : Prof. Dr. dr. Taufiq R. Nasihun, M.Kes., Sp.And
Dr. Atina Husaana,M.Si.Apt
Tempat Penelitian : Kedokteran Unissula

dengan ini menyatakan bahwa usulan penelitian diatas telah memenuhi prasyarat etik penelitian. Oleh karena itu Komisi Bioetika merekomendasikan agar penelitian ini dapat dilaksanakan dengan mempertimbangkan prinsip-prinsip yang dinyatakan dalam Deklarasi Helsinki dan panduan yang tertuang dalam Pedoman Nasional Etik Penelitian Kesehatan (PNEPK) Departemen Kesehatan RI tahun 2004.

Semarang, 13 Maret 2018
Komisi Bioetika Penelitian Kedokteran/Kesehatan
Fakultas Kedokteran Unissula
Ketua,

(dr. Sofwan Dahlan, Sp.F(K))

Lampiran 2. Data hasil pengukuran TNF α

RSI SULTAN AGUNG
ISLAMIC TEACHING HOSPITAL

LABORATORIUM PATOLOGI ANATOMI
HASIL PEMBACAAN

TNF-α

Kelompok		lapang pandang				
		I	II	III	IV	V
KONTROL	1	7	7	8	9	7
	2	6	6	5	7	6
	3	7	6	5	6	7
	4	8	7	9	7	7
	5	5	7	7	6	6
	6	9	8	9	7	8
PI 2.50%	1	5	6	6	7	5
	2	6	7	6	5	5
	3	7	5	6	5	4
	4	7	6	7	4	5
	5	5	5	6	6	5
	6	5	6	6	4	5
P.II 5%	1	5	3	4	4	4
	2	3	5	4	3	5
	3	4	4	3	5	4
	4	4	3	4	4	3
	5	4	4	3	5	4
	6	5	4	3	4	5
P.III 10%	1	2	4	2	3	3
	2	3	2	3	4	2
	3	1	0	2	2	1
	4	2	2	1	2	0
	5	0	1	2	2	1
	6	2	1	0	2	0

Semarang, 5 April 2018

dr. Sutiarno, MsT,Med,Sp.PA

e-mail : rs@rsisultanagung.co.id | www.rsisultanagung.co.id

Lampiran 3. Data hasil pengukuran VEGF

RSI SULTAN AGUNG
ISLAMIC TEACHING HOSPITAL

LABORATORIUM PATOLOGI ANATOMI
HASIL PEMBACAAN

FEGF

Kelompok		lapang pandang				
		I	II	III	IV	V
KONTROL	1	3	4	3	2	3
	2	4	5	3	4	2
	3	3	4	4	5	3
	4	4	2	3	4	3
	5	5	3	4	3	2
	6	4	3	4	2	3
PI 2.50%	1	6	6	7	6	5
	2	5	7	6	5	7
	3	6	6	7	5	7
	4	7	5	6	7	6
	5	5	6	7	6	7
	6	7	6	8	5	7
P.II 5%	1	8	9	7	8	7
	2	7	8	7	9	8
	3	9	8	9	7	8
	4	7	7	8	9	8
	5	9	8	9	7	7
	6	8	9	7	9	8
P.III 10%	1	11	9	10	8	9
	2	9	12	10	11	8
	3	12	9	12	8	9
	4	10	8	9	12	9
	5	12	10	9	11	9
	6	8	12	9	10	9

Semarang, 5 April 2018

dr.Sumarno,Msi,Med,Sp.PA

e-mail : rs@risultanagung.co.id | www.risultanagung.co.id

Lampiran 4. Hasil analisis deskriptif ekpresi TNF-α dan VEGF

Means

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
TNFa * Kelompok	24	100.0%	0	0.0%	24	100.0%
VEGF * Kelompok	24	100.0%	0	0.0%	24	100.0%

Report

Kelompok		TNFa	VEGF
kontrol	Mean	6.9667	3.3667
	Std. Deviation	.94163	.29439
	Median	6.9000	3.3000
	Minimum	6.00	3.00
	Maximum	8.20	3.80
	N	6	6
Perlakuan I	Mean	5.5667	6.2000
	Std. Deviation	.26583	.21909
	Median	5.6000	6.2000
	Minimum	5.20	6.00
	Maximum	5.80	6.60
	N	6	6
Perlakuan II	Mean	3.9667	7.9667
	Std. Deviation	.19664	.19664
	Median	4.0000	7.9000
	Minimum	3.60	7.80
	Maximum	4.20	8.20
	N	6	6

Perlakuan III	Mean	1.7333	9.8000
	Std. Deviation	.83586	.30984
	Median	1.3000	9.8000
	Minimum	1.00	9.40
	Maximum	2.80	10.20
	N	6	6
Total	Mean	4.5583	6.8333
	Std. Deviation	2.07844	2.43501
	Median	4.7000	7.2000
	Minimum	1.00	3.00
	Maximum	8.20	10.20
	N	24	24

Lampiran 5. Hasil analisis normalitas dan homogenitas ekpresi TNF-α dan VEGF

Case Processing Summary

	Kelompok	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
TNFa	kontrol	6	100.0%	0	0.0%	6	100.0%
	Perlakuan I	6	100.0%	0	0.0%	6	100.0%
	Perlakuan II	6	100.0%	0	0.0%	6	100.0%
	Perlakuan III	6	100.0%	0	0.0%	6	100.0%
VEGF	kontrol	6	100.0%	0	0.0%	6	100.0%
	Perlakuan I	6	100.0%	0	0.0%	6	100.0%
	Perlakuan II	6	100.0%	0	0.0%	6	100.0%
	Perlakuan III	6	100.0%	0	0.0%	6	100.0%

Tests of Normality

	Kelompok	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
TNFa	kontrol	.292	6	.119	.841	6	.133
	Perlakuan I	.310	6	.074	.805	6	.065
	Perlakuan II	.401	6	.003	.770	6	.031
	Perlakuan III	.322	6	.052	.755	6	.022
VEGF	kontrol	.214	6	.200*	.958	6	.804
	Perlakuan I	.333	6	.036	.814	6	.078
	Perlakuan II	.302	6	.094	.775	6	.035
	Perlakuan III	.241	6	.200*	.913	6	.456

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

a. Lilliefors Significance Correction

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
TNFa	Based on Mean	17.144	3	20	.000
	Based on Median	4.628	3	20	.013
	Based on Median and with adjusted df	4.628	3	6.954	.044
	Based on trimmed mean	15.985	3	20	.000
VEGF	Based on Mean	1.389	3	20	.275
	Based on Median	1.190	3	20	.339
	Based on Median and with adjusted df	1.190	3	16.897	.343
	Based on trimmed mean	1.350	3	20	.287

Lampiran 6. Hasil analisis perbedaan ekpresi TNF-α dan VEGF antar keempat kelompok dengan uji Kruskal Wallis

NPar Tests

Kruskal-Wallis Test

Ranks

	Kelompok	N	Mean Rank
TNFa	kontrol	6	21.50
	Perlakuan I	6	15.50
	Perlakuan II	6	9.50
	Perlakuan III	6	3.50
	Total	24	
VEGF	kontrol	6	3.50
	Perlakuan I	6	9.50
	Perlakuan II	6	15.50
	Perlakuan III	6	21.50
	Total	24	

Test Statistics[a,b]

	TNFa	VEGF
Chi-Square	21.780	21.723
df	3	3
Asymp. Sig.	.0001	.0001

a. Kruskal Wallis Test

b. Grouping Variable: Kelompok

Lampiran7. Hasil analisis perbedaan ekpresi TNF-α dan VEGF antar dua kelompok dengan uji Mann Whitney

NPar Tests

Mann-Whitney Test

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
TNFa	kontrol	6	9.50	57.00
	Perlakuan I	6	3.50	21.00
	Total	12		
VEGF	kontrol	6	3.50	21.00
	Perlakuan I	6	9.50	57.00
	Total	12		

Test Statistics[a]

	TNFa	VEGF
Mann-Whitney U	.000	.000
Wilcoxon W	21.000	21.000
Z	-2.918	-2.913
Asymp. Sig. (2-tailed)	.004	.004
Exact Sig. [2*(1-tailed Sig.)]	.002[b]	.002[b]

a. Grouping Variable: Kelompok

b. Not corrected for ties.

NPar Tests

Mann-Whitney Test

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
TNFa	kontrol	6	9.50	57.00
	Perlakuan II	6	3.50	21.00
	Total	12		
VEGF	kontrol	6	3.50	21.00
	Perlakuan II	6	9.50	57.00
	Total	12		

Test Statistics[a]

	TNFa	VEGF
Mann-Whitney U	.000	.000
Wilcoxon W	21.000	21.000
Z	-2.945	-2.913
Asymp. Sig. (2-tailed)	.003	.004
Exact Sig. [2*(1-tailed Sig.)]	.002[b]	.002[b]

a. Grouping Variable: Kelompok

b. Not corrected for ties.

NPar Tests

Mann-Whitney Test

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
TNFa	kontrol	6	9.50	57.00
	Perlakuan III	6	3.50	21.00
	Total	12		
VEGF	kontrol	6	3.50	21.00
	Perlakuan III	6	9.50	57.00
	Total	12		

Test Statistics[a]

	TNFa	VEGF
Mann-Whitney U	.000	.000
Wilcoxon W	21.000	21.000
Z	-2.903	-2.898
Asymp. Sig. (2-tailed)	.004	.004
Exact Sig. [2*(1-tailed Sig.)]	.002[b]	.002[b]

a. Grouping Variable: Kelompok

b. Not corrected for ties.

NPar Tests

Mann-Whitney Test

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
TNFa	Perlakuan I	6	9.50	57.00
	Perlakuan II	6	3.50	21.00
	Total	12		
VEGF	Perlakuan I	6	3.50	21.00
	Perlakuan II	6	9.50	57.00
	Total	12		

Test Statistics[a]

	TNFa	VEGF
Mann-Whitney U	.000	.000
Wilcoxon W	21.000	21.000
Z	-2.961	-2.934
Asymp. Sig. (2-tailed)	.003	.003
Exact Sig. [2*(1-tailed Sig.)]	.002[b]	.002[b]

a. Grouping Variable: Kelompok

b. Not corrected for ties.

NPar Tests

Mann-Whitney Test

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
TNFa	Perlakuan I	6	9.50	57.00
	Perlakuan III	6	3.50	21.00
	Total	12		
VEGF	Perlakuan I	6	3.50	21.00
	Perlakuan III	6	9.50	57.00
	Total	12		

Test Statistics[a]

	TNFa	VEGF
Mann-Whitney U	.000	.000
Wilcoxon W	21.000	21.000
Z	-2.918	-2.918
Asymp. Sig. (2-tailed)	.004	.004
Exact Sig. [2*(1-tailed Sig.)]	.002[b]	.002[b]

a. Grouping Variable: Kelompok

b. Not corrected for ties.

NPar Tests

Mann-Whitney Test

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
TNFa	Perlakuan II	6	9.50	57.00
	Perlakuan III	6	3.50	21.00
	Total	12		
VEGF	Perlakuan II	6	3.50	21.00
	Perlakuan III	6	9.50	57.00
	Total	12		

Test Statistics[a]

	TNFa	VEGF
Mann-Whitney U	.000	.000
Wilcoxon W	21.000	21.000
Z	-2.945	-2.918
Asymp. Sig. (2-tailed)	.003	.004
Exact Sig. [2*(1-tailed Sig.)]	.002[b]	.002[b]

a. Grouping Variable: Kelompok

b. Not corrected for ties.

Lampiran 8. Dokumentasi Penelitian

Daun Sirsak

Water Bath

Pengering Bahan

Penimbangan Bahan

Rotavapor

Hasil Penguapan Ekstrak

Penimbangan Ekstrak

Pembuatan ekstrak Krim

Krim Dalam Pot

Lampiran 9. Dokumentasi Penelitian

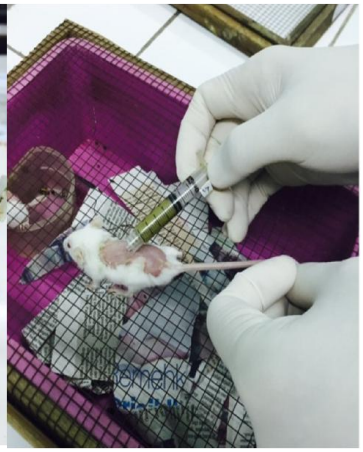
Mencit BALB/c

Cukur Punggung

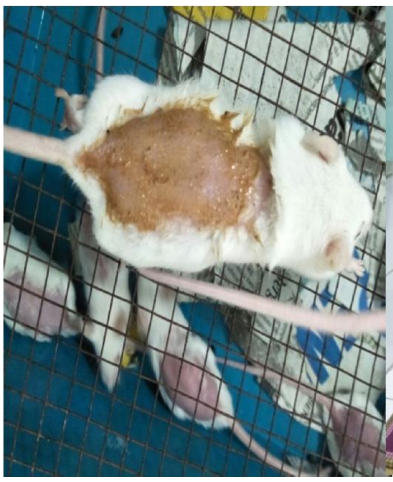
Hasil Pencukuran

Siap Diberi Perlakuan UVB

Krim Ekstrak Etanol

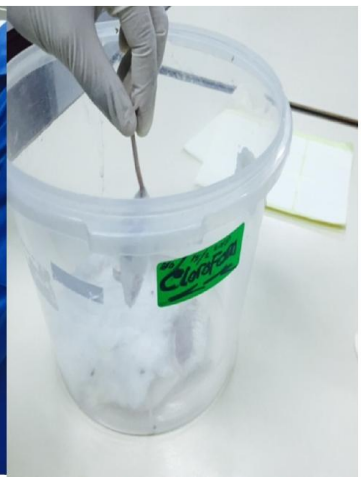


Pemberian Krim



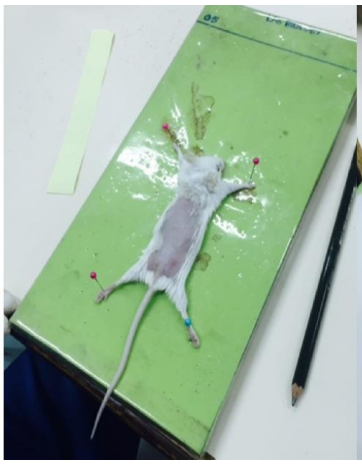
Pengolesan Krim

Pemberian Krim Kontrol



Klorofom

Lampiran 10. Dokumen Penelitian

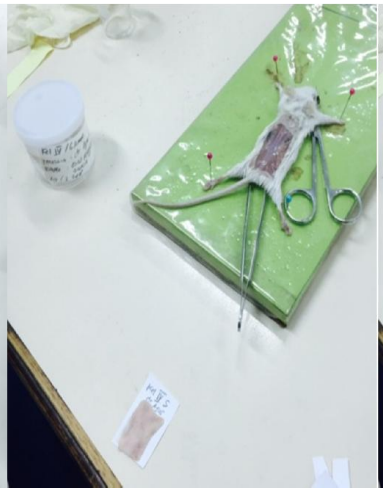


Fiksasi

Awal Pengambilan Jaringan

Pengambilan Jaringan

Pemotongan Jaringan



Jaringan ditempel Dikarton

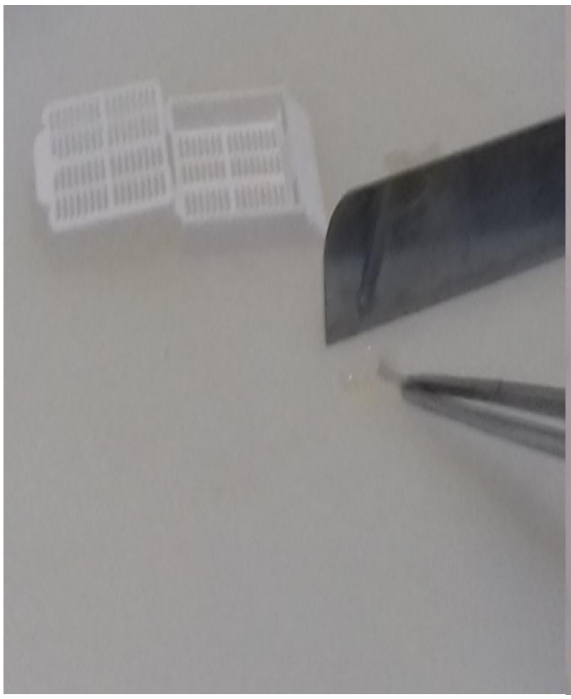
Buffer Formalin

Jaringan Dalam Buffer.F

Pelabelan Jaringan

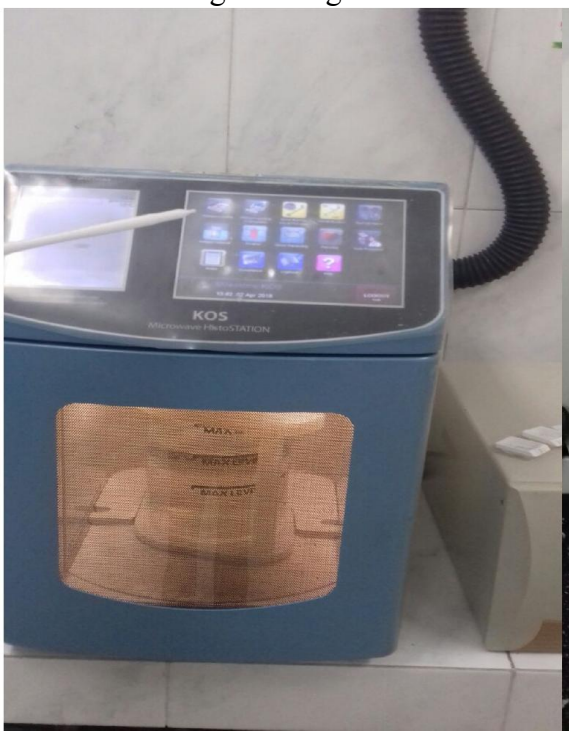
Jaringan Siap di Kirim

Lampiran 11. Dokumen Penelitian



Pemotongan Jaringan Basah

Blok Parafin



Pemprosesan Jaringan

Pemotongan Blok

Lampiran 12. Lembar persetujuan perbaikan tesis

	PRODI MAGISTER BIOMEDIK FAKULTAS KEDOKTERAN UNIVERSITAS ISLAM SULTAN AGUNG	No. Dokumen	FORM-SA-K- Biomed. 0027
		Tgl Berlaku	1 Mei 2014
	PERSETUJUAN PERBAIKAN TESIS	No. Revisi	00
		Halaman	1 dari 1

LEMBAR PERSETUJUAN PERBAIKAN TESIS

Jenis Ujian : Proposal Tesis
Nama : Agus Susanto
NIM : MBK. 167.01.0090
Judul Tesis : PENGARUH KRIM EKSTRAK ETANOL DAUN SIRSAK *(Annona muricata,Linn)* TERHADAP EKSPRESI TNF-α DAN VEGF
Studi Pada Kulit Mencit BALB/c Yang Dipapar UVB Akut

No	Nama	Jabatan	Yang direvisi (Hal)	Yang sdh direvisi (Hal)	Paraf
1.	Prof.Dr.dr. Taufiqurrachman N, M.Kes., Sp.And	Pembimbing I	17, Hajrezaie leaves accelerat 70 and antioxic ant defence; 201	17, Karimian wound healing	1.
2.	Dr.Dra. Atina Hussaana, MSi., Apt	Pembimbing	33,34,40,42,44,49,57 58	33,34,40,42,44,49,57 58	2.
3.	Dr.dr. Renni Yuniati, Sp.KK. FINSDV	Penguji I	7,40,41,42,44,47	7,40,41,42,44,47	3.
4.	Dr.dr. Joko Wahyu W, M.Kes	Penguji II	1,2,3,13,17,24,38 40,57	1,2,3,13,17,24,38 40,57	4.
5.	Dr.Drs. Israhnanto Isradji, MSi	Penguji III	28,32,35,38,42,47,57 58,59	28,32,35,38,42,47,57 58,59	5.

Mengetahui,
Ka.Prodi Magister Biomedik
FK Unissula

Prof.Dr.dr. Taufiqurrachman N,M.Kes.,Sp.And.
NIK. 020.186.022

[i]Chan Pit Foong; Evaluation of anti-inflammatory activities of ethanolic extract of *Annona muricata* leaves. 2012

Paaraki PM, Chansouria J.P.N, Khosa R.L, *Wound Healing Activity of Annona Muricata Extract. J. Pharm. Res.* 2009;2:404-[illegible].

[vi]de Sousa OV, Vieira GD, de Jesus R G, Yamamoto CH, and Alves MS. Antinociceptive and Anti-Inflammatory Activity of The Ethanol Extract of Annona Muricata L. Leaves in [illegible] International Journal of Molecular Science. 2010; 11(5): 2067–2[illegible]

[vii]Pratama A.J; Rusli R; Sulistiarini R; Uji Aktifitas Kombinasi Ekstrak Daun Sirih Merah (Piper crocatum) dan Daun Sirsak (Annona muricata L) Proses Penyembuhan Luka; 2016

[viii]Gloria Agita Syauta, Dian Ratih Laksmitawati, Hesty Utami, Aktivitas Anti Inflamasi Ekstrak Etanol Daun Sirsak (Annona Muricata L) Melalui Penghambatan TNF-α dan IL-1β Kultur Sel Raw 264.7, 2016