

LAMPIRAN

Lampiran 1.

Hasil determinasi bunga kecombrang (*Nicolaia speciosa* Horan):


BAGIAN BIOLOGI FARMASI
FAKULTAS FARMASI
UNIVERSITAS GADJAH MADA YOGYAKARTA
Alamat: Sekip Utara II, Kalurang Km 4, Yogyakarta 55281
Telp. 0274.542738, 0274.649.2568 Fax. +274-545120

SURAT KETERANGAN
No.: BF/225/ Ident/Det/V/2014

Kepada Yth. :
Sdr/Sdr. Alham Andri Nasution
NIM. 20110350066
Fakultas Farmasi Universitas Muhammadiyah Yogyakarta
Di Yogyakarta

Dengan hormat,

Bersama ini kami sampaikan hasil identifikasi/determinasi sampel yang Saudara kirimkan ke Bagian Biologi Farmasi, Fakultas Farmasi UGM, adalah :

No.Pendaftaran	Jenis	Suku
236	<i>Nicolaia speciosa</i> Horan	Zingiberaceae

Demikian, semoga dapat digunakan sebagaimana mestinya.

Yogyakarta, 29 Mei 2014
Ketua


Prof. Dr. Wahyono, SU., Apt.
NIP. 195007011977021001



Lampiran 2.

Hasil ekstraksi bunga kecombrang (*Nicolaia speciosa* Horan):



A. Cair bunga kecombrang (*Nicolaia speciosa* Horan)



B. Ekstrak kental bunga kecombrang (*Nicolaia speciosa* Horan)

Lampiran 3.

Perhitungan rendemen:

a. Rendemen

Serbuk bunga kecombrang 1,2 kg, diekstraksi dengan menggunakan etanol 70%.

Hasil penguapan pelarut diperoleh ekstrak bunga kecombrang (*Nicolaia speciosa* Horan) 82,254 g.

$$\text{Rendemen} = \frac{82,254}{1200} \times 100\% = 6,85\%$$

Hasil karakteristik ekstrak bunga kecombrang (*Nicolaia speciosa* Horan)

Karakteristik ekstrak	Hasil
Rendemen	6,85%
Warna	Coklat kemerahan
Rasa	Asam, seperti jamu
Bau	Wangi khas bunga kecombrang, Menyengat seperti lengkuas

Lampiran 4.

Hasil uji aktivitas antibakteri:

A. Hasil uji antibakteri siprofloksasin

Bakteri uji	Konsentrasi Siprofloksasin (μ l)	DZI (mm)			DZI rata- rata(mm)	Harga KBM
		Replikasi				
		1	2	3		
<i>Shigella dysenteriae</i>	5	28	29	26	27,66	2mg/ml
<i>Vibrio cholerae</i>	5	27	28	28	27.66	2mg/ml

Lampiran 5.

Hasil Analisis One way ANOVA menggunakan program SPSS:

A. Hasil Analisis deskriptif bakteri *Shigella dysenteriae*

Descriptives

Shigella dysenteriae sa Horan)

B. Hasil analisis deskriptif bakteri <i>Vibrio cholerae</i>								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
10%	3	.0000	.00000	.00000	.0000	.0000	.00	.00
25%	3	.0000	.00000	.00000	.0000	.0000	.00	.00
50%	3	.0000	.00000	.00000	.0000	.0000	.00	.00
75%	3	8.3333	1.52753	.88192	4.5388	12.1279	7.00	10.00
90%	3	14.3333	.57735	.33333	12.8991	15.7676	14.00	15.00
Siprofloksasin	3	27.6667	1.52753	.88192	23.8721	31.4612	26.00	29.00
Total	18	8.3889	10.47203	2.46828	3.1813	13.5965	.00	29.00

10 0 0 0 0

25 0 0 0 0

Descriptives

Vibrio cholerae %

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
10%	3	.0000	.00000	.00000	.0000	.0000	.00	.00
25%	3	.0000	.00000	.00000	.0000	.0000	.00	.00
50%	3	.0000	.00000	.00000	.0000	.0000	.00	.00
75%	3	9.0000	1.00000	.57735	6.5159	11.4841	8.00	10.00
90%	3	12.3333	1.15470	.66667	9.4649	15.2018	11.00	13.00
Siprofloksasin	3	27.6667	.57735	.33333	26.2324	29.1009	27.00	28.00
Total	18	8.1667	10.29134	2.42569	3.0489	13.2844	.00	28.00

25 0 0 0 0

50 0 0 0 0 75%

Vibrio

C. Analisis Multiple Comparison Uji Tukey *Shigella dysenteriae*

Perlakuan	N	Subset for alpha = 0.05			
		1	2	3	4
Tukey HSD ^a					
10%	3	.0000			
25%	3	.0000			
50%	3	.0000			
75%	3		8.3333		
90%	3			14.3333	
Siprofloksasin	3				27.6667
Sig.		1.000	1.000	1.000	1.000

D. Analisis Multiple Comparison Uji Tukey *Vibrio cholerae*

Perlakuan	N	Subset for alpha = 0.05			
		1	2	3	4
10%	3	.0000			
25%	3	.0000			
50%	3	.0000			
75%	3		9.0000		
90%	3			12.3333	
Siprofloksasin	3				27.6667
Sig.		1.000	1.000	1.000	1.000

E. One way ANOVA *Shigella dysenteriae* dan *Vibrio cholerae*

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
<i>Shigella dysenteriae</i>	Between Groups	1854.278	5	370.856	445.027	.000
	Within Groups	10.000	12	.833		
	Total	1864.278	17			
<i>Vibrio cholerae</i>	Between Groups	1795.167	5	359.033	807.825	.000
	Within Groups	5.333	12	.444		
	Total	1800.500	17			

F. Uji *Post-hoc* dengan metode LSD *Shigella dysenteriae* dan *Vibrio cholerae*

	(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	10%	25%	.00000	.74536	1.000	-2.5036	2.5036
		50%	.00000	.74536	1.000	-2.5036	2.5036
		75%	-8.33333*	.74536	.000	-10.8369	-5.8297
		90%	-14.33333*	.74536	.000	-16.8369	-11.8297
		Siprofloksasin	-27.66667*	.74536	.000	-30.1703	-25.1631
	25%	10%	.00000	.74536	1.000	-2.5036	2.5036
		50%	.00000	.74536	1.000	-2.5036	2.5036
		75%	-8.33333*	.74536	.000	-10.8369	-5.8297
		90%	-14.33333*	.74536	.000	-16.8369	-11.8297
		Siprofloksasin	-27.66667*	.74536	.000	-30.1703	-25.1631
	50%	10%	.00000	.74536	1.000	-2.5036	2.5036
		25%	.00000	.74536	1.000	-2.5036	2.5036
		75%	-8.33333*	.74536	.000	-10.8369	-5.8297
		90%	-14.33333*	.74536	.000	-16.8369	-11.8297
		Siprofloksasin	-27.66667*	.74536	.000	-30.1703	-25.1631
	75%	10%	8.33333*	.74536	.000	5.8297	10.8369
		25%	8.33333*	.74536	.000	5.8297	10.8369
		50%	8.33333*	.74536	.000	5.8297	10.8369
		90%	-6.00000*	.74536	.000	-8.5036	-3.4964
		Siprofloksasin	-19.33333*	.74536	.000	-21.8369	-16.8297
	90%	10%	14.33333*	.74536	.000	11.8297	16.8369
		25%	14.33333*	.74536	.000	11.8297	16.8369
		50%	14.33333*	.74536	.000	11.8297	16.8369
		75%	6.00000*	.74536	.000	3.4964	8.5036
		Siprofloksasin	-13.33333*	.74536	.000	-15.8369	-10.8297
Siprofloksasin	10%	27.66667*	.74536	.000	25.1631	30.1703	
	25%	27.66667*	.74536	.000	25.1631	30.1703	
	50%	27.66667*	.74536	.000	25.1631	30.1703	
	75%	19.33333*	.74536	.000	16.8297	21.8369	
	90%	13.33333*	.74536	.000	10.8297	15.8369	
LSD	10%	25%	.00000	.74536	1.000	-1.6240	1.6240
		50%	.00000	.74536	1.000	-1.6240	1.6240
		75%	-8.33333*	.74536	.000	-9.9573	-6.7093
		90%	-14.33333*	.74536	.000	-15.9573	-12.7093
		Siprofloksasin	-27.66667*	.74536	.000	-29.2907	-26.0427
	25%	10%	.00000	.74536	1.000	-1.6240	1.6240
		50%	.00000	.74536	1.000	-1.6240	1.6240
		75%	-8.33333*	.74536	.000	-9.9573	-6.7093
		90%	-14.33333*	.74536	.000	-15.9573	-12.7093
		Siprofloksasin	-27.66667*	.74536	.000	-29.2907	-26.0427
	50%	10%	.00000	.74536	1.000	-1.6240	1.6240
		25%	.00000	.74536	1.000	-1.6240	1.6240
		75%	-8.33333*	.74536	.000	-9.9573	-6.7093
		90%	-14.33333*	.74536	.000	-15.9573	-12.7093
		Siprofloksasin	-27.66667*	.74536	.000	-29.2907	-26.0427
	75%	10%	8.33333*	.74536	.000	6.7093	9.9573
		25%	8.33333*	.74536	.000	6.7093	9.9573
		50%	8.33333*	.74536	.000	6.7093	9.9573
		90%	-6.00000*	.74536	.000	-7.6240	-4.3760
		Siprofloksasin	-19.33333*	.74536	.000	-20.9573	-17.7093
	90%	10%	14.33333*	.74536	.000	12.7093	15.9573
		25%	14.33333*	.74536	.000	12.7093	15.9573
		50%	14.33333*	.74536	.000	12.7093	15.9573
		75%	6.00000*	.74536	.000	4.3760	7.6240
		Siprofloksasin	-13.33333*	.74536	.000	-14.9573	-11.7093
Siprofloksasin	10%	27.66667*	.74536	.000	26.0427	29.2907	
	25%	27.66667*	.74536	.000	26.0427	29.2907	
	50%	27.66667*	.74536	.000	26.0427	29.2907	
	75%	19.33333*	.74536	.000	17.7093	20.9573	
	90%	13.33333*	.74536	.000	11.7093	14.9573	

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

Lampiran 6.

Hasil uji aktivitas antibakteri ekstrak etanol (*Nicolaia speciosa* Horan):



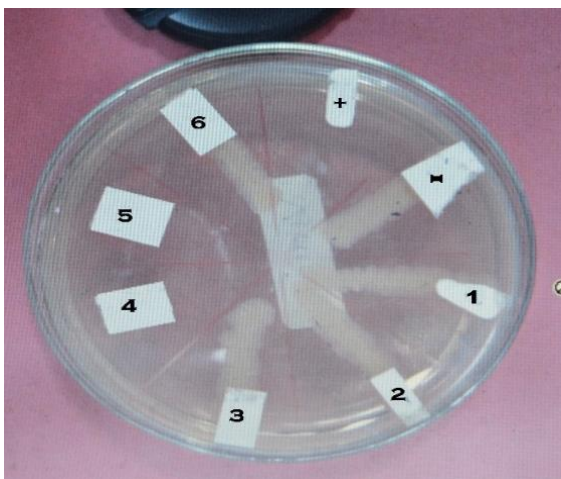
A. Proses pembuatan larutan uji Kadar Bunuh Minimum (KBM)



B. KBM terhadap bakteri *Shigella dysenteriae*

Keterangan Gambar

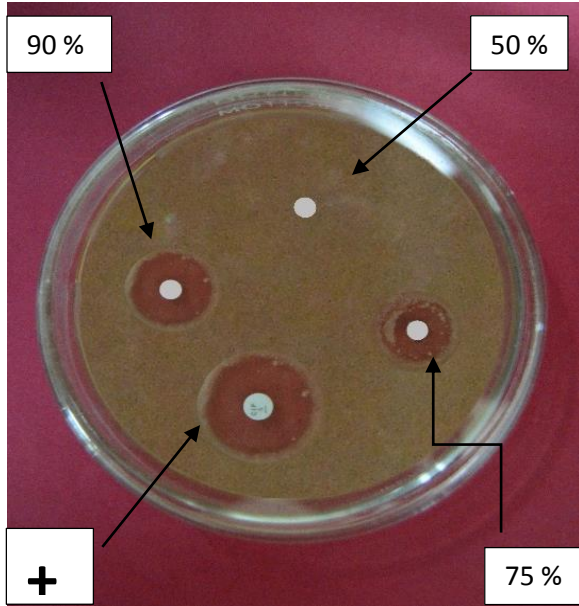
1. Ekstrak Konsentrasi 10%.
 2. Ekstrak Konsentrasi 25%.
 3. Ekstrak Konsentrasi 50%.
 4. Ekstrak Konsentrasi 75%.
 5. Ekstrak Konsentrasi 90%.
 6. Kontrol negative
 7. Sisah suspense bakteri
- +. Kontrol positif



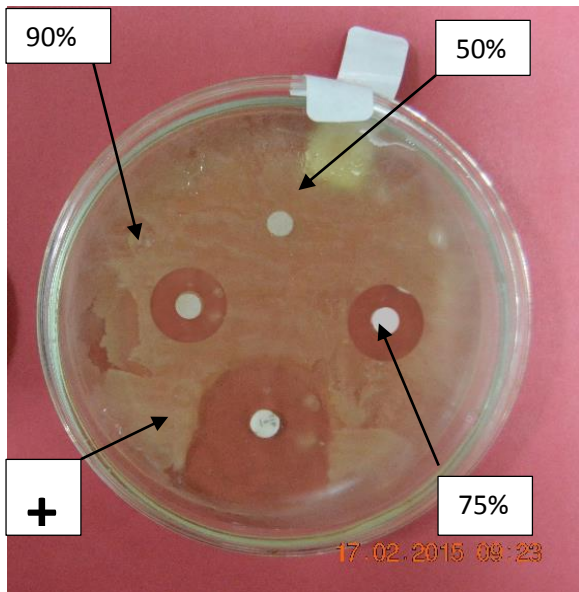
C. KBM terhadap bakteri *Vibrio cholera*

Keterangan Gambar

1. Ekstrak Konsentrasi 10%.
 2. Ekstrak Konsentrasi 25%.
 3. Ekstrak Konsentrasi 50%.
 4. Ekstrak Konsentrasi 75%.
 5. Ekstrak Konsentrasi 90%.
 6. Sisah suspense bakteri
- +. Kontrol positif
- . Kontrol negative



D. KHM ekstrak terhadap bakteri *Shigella dysenteriae*



E. KHM ekstrak terhadap bakteri *Vibrio cholerae*

Lampiran 7.

Alat dan kegiatan:

Alat:



Evaporator

Kegiatan :



A. Hasil rajangan



B. Hasil pengeringan



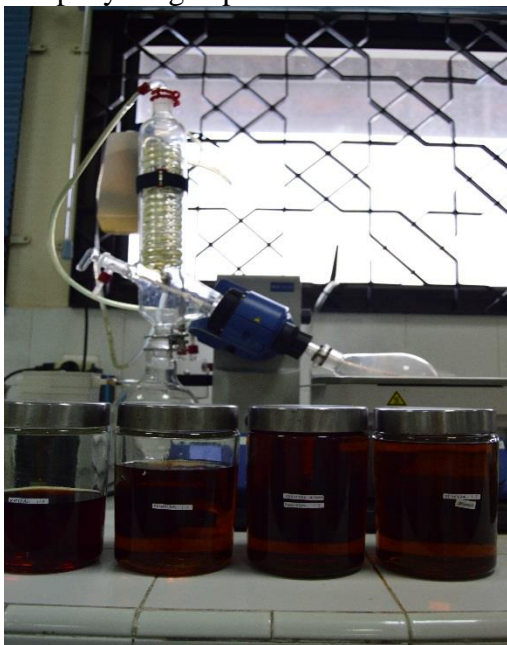
C. Proses penyerbukan



D. Proses maserasi



E. penyaringan pelarut



F. Proses Pemisahan Pelarut



G. Proses Pengentalan Ekstrak



H. Proses Uji

1.