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LAMPIRAN

Lampiran 1. Data hasil ekstrak *Ulva reticulata* menggunakan berbagai larutan dengan metode maserasi

Larutan	Berat vial (g)	Berat vial + ekstrak (g)	Berat ekstrak (g)	Berat ekstrak (mg)
n-Hexana	11,417	12,907	1,49	1490
Kloroform	11,728	14,138	2,41	2410
Etil asetat	11,597	14,557	2,96	2960
Metanol	11,649	17,959	6,31	6310
Air	11,451	18,181	6,73	6730

Lampiran 2. Perhitungan rendemen ekstrak *Ulva reticulata*

- 1). $\frac{1,49}{50} \times 100\% = 2,98\%$
- 2). $\frac{2,41}{50} \times 100\% = 4,82\%$
- 3). $\frac{2,96}{50} \times 100\% = 5,92\%$
- 4). $\frac{6,31}{50} \times 100\% = 12,62\%$
- 5). $\frac{6,73}{50} \times 100\% = 13,46\%$

Lampiran 3.Data hasil pengukuran uji aktivitas antibakteri ekstrak kasar *Ulva reticulata* terhadap bakteri *Vibrio alginolyticus* FIKP, *Aeromonas hydrophila* FIKP, *Flavobacterium* sp. FIKP, *Serratia* sp. FIKP, *Vibrio alginolyticus* BRPBAPPP, *Vibrio harvey* BRPBAPPP dan *Vibrio parahaemolyticus* BRPBAPPP.

Ekstrak	Pengulangan	Diameter zona hambat (mm)						
		<i>V. alginolyticus</i> FIKP	<i>A. hydrophila</i> FIKP	<i>Falvobacterium</i> sp FIKP	<i>Serratia</i> sp FIKP	<i>V. alginolyticus</i> BRPBAPPP	<i>V. Harveyi</i> BRPBAPPP	<i>V. Parahaemolyt</i> <i>icus</i> BRPBAPPP
n-heksan	1	12,00	6,00	18,00	15,00	6,00	6,00	9,00
	2	13,00	6,00	17,00	14,00	6,00	6,00	10,00
	3	12,00	6,00	17,00	15,00	6,00	6,00	9,00
	Rerata	12,33	6,00	17,33	14,67	6,00	6,00	9,33
Kloroform	1	6,00	21,00	15,00	6,00	6,00	11,00	6,00
	2	6,00	20,00	6,00	6,00	6,00	12,00	6,00
	3	6,00	20,00	6,00	6,00	6,00	11,00	6,00
	Rerata	6,00	20,33	9,00	6,00	6,00	11,33	6,00
Etil asetat	1	6,00	15,00	12,00	6,00	6,00	6,00	6,00
	2	6,00	16,00	6,00	6,00	6,00	6,00	6,00
	3	6,00	15,00	6,00	6,00	6,00	6,00	6,00
	Rerata	6,00	15,33	8,00	6,00	6,00	6,00	6,00
Metanol	1	16,00	21,00	21,00	20,00	6,00	15,00	12,00
	2	18,00	6,00	20,00	21,00	6,00	6,00	11,00
	3	16,00	20,00	21,00	20,00	6,00	15,00	11,00
	Rerata	16,67	15,67	20,67	20,33	6,00	12,00	11,33
Air	1	15,00	6,00	15,00	12,00	12,00	13,00	6,00
	2	13,00	6,00	16,00	13,00	11,00	12,00	6,00
	3	12,00	6,00	15,00	13,00	12,00	13,00	6,00
	Rerata	13,33	6,00	15,33	12,67	11,67	12,67	6,00
Positif	1	20,00	14,00	19,50	17,00	10,00	12,00	10,00
	2	20,00	14,00	19,50	17,00	10,00	12,00	10,00
	3	20,00	14,00	19,50	17,00	10,00	12,00	10,00
	Rerata	20,00	14,00	19,50	17,00	10,00	12,00	10,00
Negatif	1	6,00	6,00	6,00	6,00	6,00	6,00	6,00
	2	6,00	6,00	6,00	6,00	6,00	6,00	6,00
	3	6,00	6,00	6,00	6,00	6,00	6,00	6,00
	Rerata	6,00	6,00	6,00	6,00	6,00	6,00	6,00

Lampiran 4.Hasil uji Oneway Anova dan uji lanjut Tuckey daya hambat antibakteri ekstrak *Ulva reticulata* terhadap bakteri *Vibrio alginolyticus* FIKP

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	581,238	6	96,873	169,528	,000
Within Groups	8,000	14	,571		
Total	589,238	20			

Multiple Comparisons

Dependent Variable: *Vibrio alginolyticus* FIKP

Tukey HSD

(I) perlakuan	(J) perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
n-heksan	kloroform	6,33333*	,61721	,000	4,2258	8,4409
	etil asetat	6,33333*	,61721	,000	4,2258	8,4409
	metanol	-4,33333*	,61721	,000	-6,4409	-2,2258
	air	-1,00000	,61721	,673	-3,1075	1,1075
	kontrol positif	-7,66667*	,61721	,000	-9,7742	-5,5591
	kontrol negatif	6,33333*	,61721	,000	4,2258	8,4409
kloroform	n-heksan	-6,33333*	,61721	,000	-8,4409	-4,2258
	etil asetat	,00000	,61721	1,000	-2,1075	2,1075
	metanol	-10,66667*	,61721	,000	-12,7742	-8,5591
	air	-7,33333*	,61721	,000	-9,4409	-5,2258
	kontrol positif	-14,00000*	,61721	,000	-16,1075	-11,8925
	kontrol negatif	,00000	,61721	1,000	-2,1075	2,1075
etil asetat	n-heksan	-6,33333*	,61721	,000	-8,4409	-4,2258
	kloroform	,00000	,61721	1,000	-2,1075	2,1075
	metanol	-10,66667*	,61721	,000	-12,7742	-8,5591
	air	-7,33333*	,61721	,000	-9,4409	-5,2258
	kontrol positif	-14,00000*	,61721	,000	-16,1075	-11,8925
	kontrol negatif	,00000	,61721	1,000	-2,1075	2,1075
metanol	n-heksan	4,33333*	,61721	,000	2,2258	6,4409
	kloroform	10,66667*	,61721	,000	8,5591	12,7742
	etil asetat	10,66667*	,61721	,000	8,5591	12,7742
	air	3,33333*	,61721	,001	1,2258	5,4409
	kontrol positif	-3,33333*	,61721	,001	-5,4409	-1,2258
	kontrol negatif	10,66667*	,61721	,000	8,5591	12,7742
air	n-heksan	1,00000	,61721	,673	-1,1075	3,1075
	kloroform	7,33333*	,61721	,000	5,2258	9,4409
	etil asetat	7,33333*	,61721	,000	5,2258	9,4409
	metanol	-3,33333*	,61721	,001	-5,4409	-1,2258
	kontrol positif	-6,66667*	,61721	,000	-8,7742	-4,5591
	kontrol negatif	7,33333*	,61721	,000	5,2258	9,4409
kontrol positif	n-heksan	7,66667*	,61721	,000	5,5591	9,7742
	kloroform	14,00000*	,61721	,000	11,8925	16,1075
	etil asetat	14,00000*	,61721	,000	11,8925	16,1075
	metanol	3,33333*	,61721	,001	1,2258	5,4409
	air	6,66667*	,61721	,000	4,5591	8,7742
	kontrol negatif	14,00000*	,61721	,000	11,8925	16,1075
kontrol negatif	n-heksan	-6,33333*	,61721	,000	-8,4409	-4,2258
	kloroform	,00000	,61721	1,000	-2,1075	2,1075
	etil asetat	,00000	,61721	1,000	-2,1075	2,1075
	metanol	-10,66667*	,61721	,000	-12,7742	-8,5591
	air	-7,33333*	,61721	,000	-9,4409	-5,2258
	kontrol positif	-14,00000*	,61721	,000	-16,1075	-11,8925

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

Tukey HSD^a

perlakuan	N	Subset for alpha = 0.05			
		1	2	3	4
kloroform	3	6,0000			
etil asetat	3	6,0000			
kontrol negatif	3	6,0000			
n-heksan	3		12,3333		
air	3		13,3333		
metanol	3			16,6667	
kontrol positif	3				20,0000
Sig.		1,000	,673	1,000	1,000

Means for groups in homogeneous subsets are displayed.

Lampiran 5. Hasil uji Oneway Anova dan uji lanjut Tukey daya hambat antibakteri ekstrak *Ulva reticulata* terhadap bakteri *Aeromonas hydrophilla* FIKP

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	617,810	6	102,968	10,152	,000
Within Groups	142,000	14	10,143		
Total	759,810	20			

Multiple Comparisons

Dependent Variable: *Aeromona hydrophilla* FIKP

Tukey HSD

(I) perlakuan	(J) perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
n-heksan	kloroform	-14,33333*	2,60037	,001	-23,2125	-5,4542
	etil asetat	-9,33333*	2,60037	,037	-18,2125	-,4542
	metanol	-9,66667*	2,60037	,029	-18,5458	-,7875
	air	,00000	2,60037	1,000	-8,8792	8,8792
	kontrol positif	-8,00000	2,60037	,090	-16,8792	,8792
	kontrol negatif	,00000	2,60037	1,000	-8,8792	8,8792
kloroform	n-heksan	14,33333*	2,60037	,001	5,4542	23,2125
	etil asetat	5,00000	2,60037	,498	-3,8792	13,8792
	metanol	4,66667	2,60037	,571	-4,2125	13,5458
	air	14,33333*	2,60037	,001	5,4542	23,2125
	kontrol positif	6,33333	2,60037	,254	-2,5458	15,2125
	kontrol negatif	14,33333*	2,60037	,001	5,4542	23,2125
etil asetat	n-heksan	9,33333*	2,60037	,037	,4542	18,2125
	kloroform	-5,00000	2,60037	,498	-13,8792	3,8792
	metanol	-,33333	2,60037	1,000	-9,2125	8,5458
	air	9,33333*	2,60037	,037	,4542	18,2125
	kontrol positif	1,33333	2,60037	,998	-7,5458	10,2125

	kontrol negatif	9,33333*	2,60037	,037	,4542	18,2125
metanol	n-heksan	9,66667*	2,60037	,029	,7875	18,5458
	kloroform	-4,66667	2,60037	,571	-13,5458	4,2125
	etil asetat	,33333	2,60037	1,000	-8,5458	9,2125
	air	9,66667*	2,60037	,029	,7875	18,5458
	kontrol positif	1,66667	2,60037	,994	-7,2125	10,5458
	kontrol negatif	9,66667*	2,60037	,029	,7875	18,5458
air	n-heksan	,00000	2,60037	1,000	-8,8792	8,8792
	kloroform	-14,33333*	2,60037	,001	-23,2125	-5,4542
	etil asetat	-9,33333*	2,60037	,037	-18,2125	-,4542
	metanol	-9,66667*	2,60037	,029	-18,5458	-,7875
	kontrol positif	-8,00000	2,60037	,090	-16,8792	,8792
	kontrol negatif	,00000	2,60037	1,000	-8,8792	8,8792
kontrol positif	n-heksan	8,00000	2,60037	,090	-,8792	16,8792
	kloroform	-6,33333	2,60037	,254	-15,2125	2,5458
	etil asetat	-1,33333	2,60037	,998	-10,2125	7,5458
	metanol	-1,66667	2,60037	,994	-10,5458	7,2125
	air	8,00000	2,60037	,090	-,8792	16,8792
	kontrol negatif	8,00000	2,60037	,090	-,8792	16,8792
kontrol negatif	n-heksan	,00000	2,60037	1,000	-8,8792	8,8792
	kloroform	-14,33333*	2,60037	,001	-23,2125	-5,4542
	etil asetat	-9,33333*	2,60037	,037	-18,2125	-,4542
	metanol	-9,66667*	2,60037	,029	-18,5458	-,7875
	air	,00000	2,60037	1,000	-8,8792	8,8792
	kontrol positif	-8,00000	2,60037	,090	-16,8792	,8792

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

ulangan

Tukey HSD

perlakuan	N	Subset for alpha = 0.05	
		1	2
n-heksan	3	6,0000	
air	3	6,0000	
kontrol negatif	3	6,0000	
kontrol positif	3	14,0000	14,0000
etil asetat	3		15,3333
metanol	3		15,6667
kloroform	3		20,3333
Sig.		,090	,254

Means for groups in homogeneous subsets are displayed.

Lampiran 6. Hasil uji Oneway Anova dan uji lanjut Tuckey daya hambat antibakteri ekstrak *Ulva reticulata* terhadap bakteri *Flavobacterium* sp. FIKP.

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	635,738	6	105,956	18,542	,000
Within Groups	80,000	14	5,714		
Total	715,738	20			

Multiple Comparisons

Dependent Variable: *Flavobacterium* sp. FIKP

Tukey HSD

(I) perlakuan	(J) perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
n-heksan	kloroform	8,33333*	1,95180	,011	1,6687	14,9979
	etil asetat	9,33333*	1,95180	,004	2,6687	15,9979
	metanol	-3,33333	1,95180	,622	-9,9979	3,3313
	air	2,00000	1,95180	,940	-4,6646	8,6646
	kontrol positif	-2,16667	1,95180	,915	-8,8313	4,4979
	kontrol negatif	11,33333*	1,95180	,001	4,6687	17,9979
kloroform	n-heksan	-8,33333*	1,95180	,011	-14,9979	-1,6687
	etil asetat	1,00000	1,95180	,998	-5,6646	7,6646
	metanol	-11,66667*	1,95180	,001	-18,3313	-5,0021
	air	-6,33333	1,95180	,067	-12,9979	,3313
	kontrol positif	-10,50000*	1,95180	,001	-17,1646	-3,8354
	kontrol negatif	3,00000	1,95180	,720	-3,6646	9,6646
etil asetat	n-heksan	-9,33333*	1,95180	,004	-15,9979	-2,6687
	kloroform	-1,00000	1,95180	,998	-7,6646	5,6646
	metanol	-12,66667*	1,95180	,000	-19,3313	-6,0021
	air	-7,33333*	1,95180	,027	-13,9979	-,6687
	kontrol positif	-11,50000*	1,95180	,001	-18,1646	-4,8354
	kontrol negatif	2,00000	1,95180	,940	-4,6646	8,6646
metanol	n-heksan	3,33333	1,95180	,622	-3,3313	9,9979
	kloroform	11,66667*	1,95180	,001	5,0021	18,3313
	etil asetat	12,66667*	1,95180	,000	6,0021	19,3313
	air	5,33333	1,95180	,160	-1,3313	11,9979
	kontrol positif	1,16667	1,95180	,996	-5,4979	7,8313
	kontrol negatif	14,66667*	1,95180	,000	8,0021	21,3313
air	n-heksan	-2,00000	1,95180	,940	-8,6646	4,6646
	kloroform	6,33333	1,95180	,067	-,3313	12,9979
	etil asetat	7,33333*	1,95180	,027	,6687	13,9979
	metanol	-5,33333	1,95180	,160	-11,9979	1,3313
	kontrol positif	-4,16667	1,95180	,385	-10,8313	2,4979
	kontrol negatif	9,33333*	1,95180	,004	2,6687	15,9979
kontrol positif	n-heksan	2,16667	1,95180	,915	-4,4979	8,8313
	kloroform	10,50000*	1,95180	,001	3,8354	17,1646
	etil asetat	11,50000*	1,95180	,001	4,8354	18,1646
	metanol	-1,16667	1,95180	,996	-7,8313	5,4979
	air	4,16667	1,95180	,385	-2,4979	10,8313
	kontrol negatif	13,50000*	1,95180	,000	6,8354	20,1646

kontrol negatif	n-heksan	-11,33333*	1,95180	,001	-17,9979	-4,6687
	kloroform	-3,00000	1,95180	,720	-9,6646	3,6646
	etil asetat	-2,00000	1,95180	,940	-8,6646	4,6646
	metanol	-14,66667*	1,95180	,000	-21,3313	-8,0021
	air	-9,33333*	1,95180	,004	-15,9979	-2,6687
	kontrol positif	-13,50000*	1,95180	,000	-20,1646	-6,8354

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

ulangan

Tukey HSD

perlakuan	N	Subset for alpha = 0.05		
		1	2	3
kontrol negatif	3	6,0000		
etil asetat	3	8,0000		
kloroform	3	9,0000	9,0000	
air	3		15,3333	15,3333
n-heksan	3			17,3333
kontrol positif	3			19,5000
metanol	3			20,6667
Sig.		,720	,067	,160

Means for groups in homogeneous subsets are displayed.

Lampiran 7. Hasil uji Oneway Anova dan uji lanjut Tuckey daya hambat antibakteri ekstrak *Ulva reticulata* terhadap bakteri *Serratia* sp. FIKP

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	629,238	6	104,873	734,111	,000
Within Groups	2,000	14	,143		
Total	631,238	20			

Multiple Comparisons

Dependent Variable: *Serratia* sp. FIKP

Tukey HSD

(I) perlakuan	(J) perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
n-heksan	kloroform	8,66667*	,30861	,000	7,6129	9,7204
	etil asetat	8,66667*	,30861	,000	7,6129	9,7204
	metanol	-5,66667*	,30861	,000	-6,7204	-4,6129
	air	2,00000*	,30861	,000	,9462	3,0538
	kontrol positif	-2,33333*	,30861	,000	-3,3871	-1,2796

	kontrol negatif	8,66667*	,30861	,000	7,6129	9,7204
kloroform	n-heksan	-8,66667*	,30861	,000	-9,7204	-7,6129
	etil asetat	,00000	,30861	1,000	-1,0538	1,0538
	metanol	-14,33333*	,30861	,000	-15,3871	-13,2796
	air	-6,66667*	,30861	,000	-7,7204	-5,6129
	kontrol positif	-11,00000*	,30861	,000	-12,0538	-9,9462
	kontrol negatif	,00000	,30861	1,000	-1,0538	1,0538
etil asetat	n-heksan	-8,66667*	,30861	,000	-9,7204	-7,6129
	kloroform	,00000	,30861	1,000	-1,0538	1,0538
	metanol	-14,33333*	,30861	,000	-15,3871	-13,2796
	air	-6,66667*	,30861	,000	-7,7204	-5,6129
	kontrol positif	-11,00000*	,30861	,000	-12,0538	-9,9462
	kontrol negatif	,00000	,30861	1,000	-1,0538	1,0538
metanol	n-heksan	5,66667*	,30861	,000	4,6129	6,7204
	kloroform	14,33333*	,30861	,000	13,2796	15,3871
	etil asetat	14,33333*	,30861	,000	13,2796	15,3871
	air	7,66667*	,30861	,000	6,6129	8,7204
	kontrol positif	3,33333*	,30861	,000	2,2796	4,3871
	kontrol negatif	14,33333*	,30861	,000	13,2796	15,3871
air	n-heksan	-2,00000*	,30861	,000	-3,0538	-,9462
	kloroform	6,66667*	,30861	,000	5,6129	7,7204
	etil asetat	6,66667*	,30861	,000	5,6129	7,7204
	metanol	-7,66667*	,30861	,000	-8,7204	-6,6129
	kontrol positif	-4,33333*	,30861	,000	-5,3871	-3,2796
	kontrol negatif	6,66667*	,30861	,000	5,6129	7,7204
kontrol positif	n-heksan	2,33333*	,30861	,000	1,2796	3,3871
	kloroform	11,00000*	,30861	,000	9,9462	12,0538
	etil asetat	11,00000*	,30861	,000	9,9462	12,0538
	metanol	-3,33333*	,30861	,000	-4,3871	-2,2796
	air	4,33333*	,30861	,000	3,2796	5,3871
	kontrol negatif	11,00000*	,30861	,000	9,9462	12,0538
kontrol negatif	n-heksan	-8,66667*	,30861	,000	-9,7204	-7,6129
	kloroform	,00000	,30861	1,000	-1,0538	1,0538
	etil asetat	,00000	,30861	1,000	-1,0538	1,0538
	metanol	-14,33333*	,30861	,000	-15,3871	-13,2796
	air	-6,66667*	,30861	,000	-7,7204	-5,6129
	kontrol positif	-11,00000*	,30861	,000	-12,0538	-9,9462

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

ulangan

Tukey HSD

perlakuan	N	Subset for alpha = 0.05				
		1	2	3	4	5
kloroform	3	6,0000				
etil asetat	3	6,0000				
kontrol negatif	3	6,0000				
air	3		12,6667			
n-heksan	3			14,6667		
kontrol positif	3				17,0000	
metanol	3					20,3333
Sig.		1,000	1,000	1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

Lampiran 8. Hasil uji Oneway Anova dan uji lanjut Tuckey daya hambat antibakteri ekstrak *Ulva reticulata* terhadap bakteri *Vibrio alginolyticus* BRPBAPPP

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	104,286	6	17,381	365,000	,000
Within Groups	,667	14	,048		
Total	104,952	20			

Multiple Comparisons

Dependent Variable: *Vibrio alginolyticus* BRPBAPPP

Tukey HSD

(I) perlakuan	(J) perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
n-heksan	kloroform	,00000	,17817	1,000	-,6084	,6084
	etil asetat	,00000	,17817	1,000	-,6084	,6084
	metanol	,00000	,17817	1,000	-,6084	,6084
	air	-5,66667*	,17817	,000	-6,2751	-5,0583
	kontrol positif	-4,00000*	,17817	,000	-4,6084	-3,3916
	kontrol negatif	,00000	,17817	1,000	-,6084	,6084
kloroform	n-heksan	,00000	,17817	1,000	-,6084	,6084
	etil asetat	,00000	,17817	1,000	-,6084	,6084
	metanol	,00000	,17817	1,000	-,6084	,6084
	air	-5,66667*	,17817	,000	-6,2751	-5,0583
	kontrol positif	-4,00000*	,17817	,000	-4,6084	-3,3916
	kontrol negatif	,00000	,17817	1,000	-,6084	,6084
etil asetat	n-heksan	,00000	,17817	1,000	-,6084	,6084
	kloroform	,00000	,17817	1,000	-,6084	,6084
	metanol	,00000	,17817	1,000	-,6084	,6084
	air	-5,66667*	,17817	,000	-6,2751	-5,0583
	kontrol positif	-4,00000*	,17817	,000	-4,6084	-3,3916
	kontrol negatif	,00000	,17817	1,000	-,6084	,6084
metanol	n-heksan	,00000	,17817	1,000	-,6084	,6084
	kloroform	,00000	,17817	1,000	-,6084	,6084
	etil asetat	,00000	,17817	1,000	-,6084	,6084
	air	-5,66667*	,17817	,000	-6,2751	-5,0583
	kontrol positif	-4,00000*	,17817	,000	-4,6084	-3,3916
	kontrol negatif	,00000	,17817	1,000	-,6084	,6084
air	n-heksan	5,66667*	,17817	,000	5,0583	6,2751
	kloroform	5,66667*	,17817	,000	5,0583	6,2751
	etil asetat	5,66667*	,17817	,000	5,0583	6,2751
	metanol	5,66667*	,17817	,000	5,0583	6,2751
	kontrol positif	1,66667*	,17817	,000	1,0583	2,2751
	kontrol negatif	5,66667*	,17817	,000	5,0583	6,2751
kontrol positif	n-heksan	4,00000*	,17817	,000	3,3916	4,6084
	kloroform	4,00000*	,17817	,000	3,3916	4,6084
	etil asetat	4,00000*	,17817	,000	3,3916	4,6084

	metanol	4,00000*	,17817	,000	3,3916	4,6084
	air	-1,66667*	,17817	,000	-2,2751	-1,0583
	kontrol negatif	4,00000*	,17817	,000	3,3916	4,6084
kontrol negatif	n-heksan	,00000	,17817	1,000	-,6084	,6084
	kloroform	,00000	,17817	1,000	-,6084	,6084
	etil asetat	,00000	,17817	1,000	-,6084	,6084
	metanol	,00000	,17817	1,000	-,6084	,6084
	air	-5,66667*	,17817	,000	-6,2751	-5,0583
	kontrol positif	-4,00000*	,17817	,000	-4,6084	-3,3916

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

ulangan

Tukey HSD

perlakuan	N	Subset for alpha = 0.05		
		1	2	3
n-heksan	3	6,0000		
kloroform	3	6,0000		
etil asetat	3	6,0000		
metanol	3	6,0000		
kontrol negatif	3	6,0000		
kontrol positif	3		10,0000	
air	3			11,6667
Sig.		1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

Lampiran 9. Hasil uji Oneway Anova dan uji lanjut Tuckey daya hambat antibakteri ekstrak *Ulva reticulata* terhadap bakteri *Vibrio harveyi* BRPBAPPP

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	187,810	6	31,302	7,920	,001
Within Groups	55,333	14	3,952		
Total	243,143	20			

Multiple Comparisons

Dependent Variable: *Vibrio harveyi* BRPBAPPP

Tukey HSD

(I) perlakuan	(J) perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
n-heksan	kloroform	-5,33333	1,62324	,063	-10,8760	,2094
	etil asetat	,00000	1,62324	1,000	-5,5427	5,5427
	metanol	-6,00000*	1,62324	,030	-11,5427	-,4573

	air	-6,66667*	1,62324	,014	-12,2094	-1,1240
	kontrol positif	-6,00000*	1,62324	,030	-11,5427	-,4573
	kontrol negatif	,00000	1,62324	1,000	-5,5427	5,5427
kloroform	n-heksan	5,33333	1,62324	,063	-,2094	10,8760
	etil asetat	5,33333	1,62324	,063	-,2094	10,8760
	metanol	-,66667	1,62324	,999	-6,2094	4,8760
	air	-1,33333	1,62324	,978	-6,8760	4,2094
	kontrol positif	-,66667	1,62324	,999	-6,2094	4,8760
	kontrol negatif	5,33333	1,62324	,063	-,2094	10,8760
etil asetat	n-heksan	,00000	1,62324	1,000	-5,5427	5,5427
	kloroform	-5,33333	1,62324	,063	-10,8760	,2094
	metanol	-6,00000*	1,62324	,030	-11,5427	-,4573
	air	-6,66667*	1,62324	,014	-12,2094	-1,1240
	kontrol positif	-6,00000*	1,62324	,030	-11,5427	-,4573
	kontrol negatif	,00000	1,62324	1,000	-5,5427	5,5427
metanol	n-heksan	6,00000*	1,62324	,030	,4573	11,5427
	kloroform	,66667	1,62324	,999	-4,8760	6,2094
	etil asetat	6,00000*	1,62324	,030	,4573	11,5427
	air	-,66667	1,62324	,999	-6,2094	4,8760
	kontrol positif	,00000	1,62324	1,000	-5,5427	5,5427
	kontrol negatif	6,00000*	1,62324	,030	,4573	11,5427
air	n-heksan	6,66667*	1,62324	,014	1,1240	12,2094
	kloroform	1,33333	1,62324	,978	-4,2094	6,8760
	etil asetat	6,66667*	1,62324	,014	1,1240	12,2094
	metanol	,66667	1,62324	,999	-4,8760	6,2094
	kontrol positif	,66667	1,62324	,999	-4,8760	6,2094
	kontrol negatif	6,66667*	1,62324	,014	1,1240	12,2094
kontrol positif	n-heksan	6,00000*	1,62324	,030	,4573	11,5427
	kloroform	,66667	1,62324	,999	-4,8760	6,2094
	etil asetat	6,00000*	1,62324	,030	,4573	11,5427
	metanol	,00000	1,62324	1,000	-5,5427	5,5427
	air	-,66667	1,62324	,999	-6,2094	4,8760
	kontrol negatif	6,00000*	1,62324	,030	,4573	11,5427
kontrol negatif	n-heksan	,00000	1,62324	1,000	-5,5427	5,5427
	kloroform	-5,33333	1,62324	,063	-10,8760	,2094
	etil asetat	,00000	1,62324	1,000	-5,5427	5,5427
	metanol	-6,00000*	1,62324	,030	-11,5427	-,4573
	air	-6,66667*	1,62324	,014	-12,2094	-1,1240
	kontrol positif	-6,00000*	1,62324	,030	-11,5427	-,4573

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

ulangan

Tukey HSD

perlakuan	N	Subset for alpha = 0.05	
		1	2
n-heksan	3	6,0000	
etil asetat	3	6,0000	
kontrol negatif	3	6,0000	
kloroform	3	11,3333	11,3333
metanol	3		12,0000
kontrol positif	3		12,0000
air	3		12,6667
Sig.		,063	,978

Means for groups in homogeneous subsets are displayed.

Lampiran 10. Hasil uji Oneway Anova dan uji lanjut Tukey daya hambat antibakteri ekstrak *Ulva reticulata* terhadap bakteri *Vibrio parahaemolyticus* BRPBAPPP

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	97,905	6	16,317	171,333	,000
Within Groups	1,333	14	,095		
Total	99,238	20			

Multiple Comparisons

Dependent Variable: *Vibrio parahaemolyticus* BRPBAPPP

Tukey HSD

(I) perlakuan	(J) perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
n-heksan	kloroform	3,33333*	,25198	,000	2,4729	4,1937
	etil asetat	3,33333*	,25198	,000	2,4729	4,1937
	metanol	-2,00000*	,25198	,000	-2,8604	-1,1396
	air	3,33333*	,25198	,000	2,4729	4,1937
	kontrol positif	-,66667	,25198	,184	-1,5271	,1937
	kontrol negatif	3,33333*	,25198	,000	2,4729	4,1937
kloroform	n-heksan	-3,33333*	,25198	,000	-4,1937	-2,4729
	etil asetat	,00000	,25198	1,000	-,8604	,8604
	metanol	-5,33333*	,25198	,000	-6,1937	-4,4729
	air	,00000	,25198	1,000	-,8604	,8604
	kontrol positif	-4,00000*	,25198	,000	-4,8604	-3,1396
	kontrol negatif	,00000	,25198	1,000	-,8604	,8604
etil asetat	n-heksan	-3,33333*	,25198	,000	-4,1937	-2,4729
	kloroform	,00000	,25198	1,000	-,8604	,8604
	metanol	-5,33333*	,25198	,000	-6,1937	-4,4729
	air	,00000	,25198	1,000	-,8604	,8604
	kontrol positif	-4,00000*	,25198	,000	-4,8604	-3,1396
	kontrol negatif	,00000	,25198	1,000	-,8604	,8604
metanol	n-heksan	2,00000*	,25198	,000	1,1396	2,8604
	kloroform	5,33333*	,25198	,000	4,4729	6,1937
	etil asetat	5,33333*	,25198	,000	4,4729	6,1937
	air	5,33333*	,25198	,000	4,4729	6,1937
	kontrol positif	1,33333*	,25198	,002	,4729	2,1937
	kontrol negatif	5,33333*	,25198	,000	4,4729	6,1937
air	n-heksan	-3,33333*	,25198	,000	-4,1937	-2,4729
	kloroform	,00000	,25198	1,000	-,8604	,8604
	etil asetat	,00000	,25198	1,000	-,8604	,8604
	metanol	-5,33333*	,25198	,000	-6,1937	-4,4729
	kontrol positif	-4,00000*	,25198	,000	-4,8604	-3,1396
	kontrol negatif	,00000	,25198	1,000	-,8604	,8604
kontrol positif	n-heksan	,66667	,25198	,184	-,1937	1,5271
	kloroform	4,00000*	,25198	,000	3,1396	4,8604
	etil asetat	4,00000*	,25198	,000	3,1396	4,8604
	metanol	-1,33333*	,25198	,002	-2,1937	-,4729
	air	4,00000*	,25198	,000	3,1396	4,8604
	kontrol negatif	4,00000*	,25198	,000	3,1396	4,8604

kontrol negatif	n-heksan	-3,33333*	,25198	,000	-4,1937	-2,4729
	kloroform	,00000	,25198	1,000	-,8604	,8604
	etil asetat	,00000	,25198	1,000	-,8604	,8604
	metanol	-5,33333*	,25198	,000	-6,1937	-4,4729
	air	,00000	,25198	1,000	-,8604	,8604
	kontrol positif	-4,00000*	,25198	,000	-4,8604	-3,1396

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

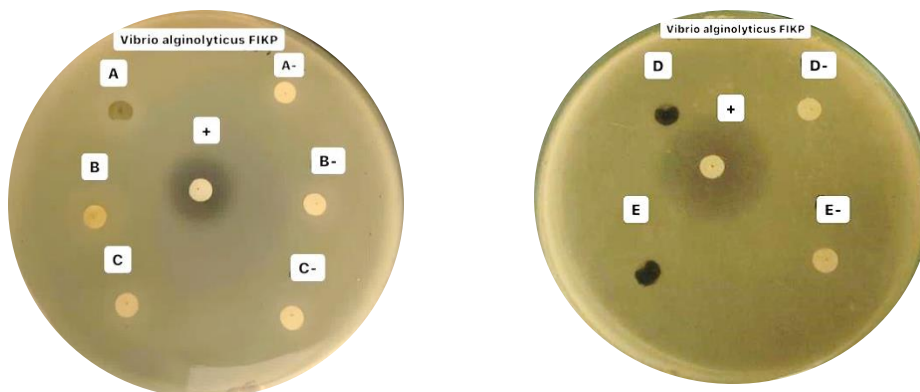
ulangan

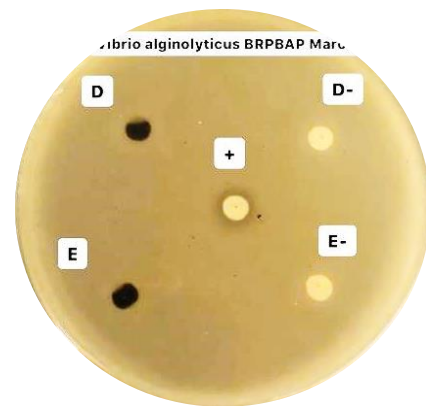
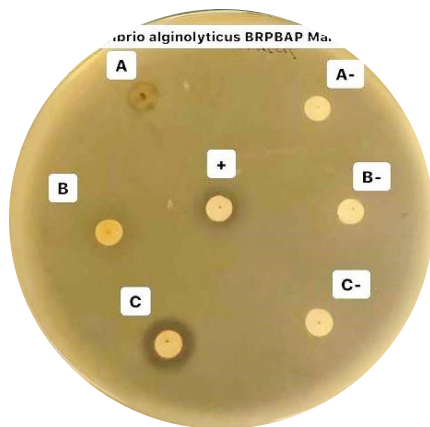
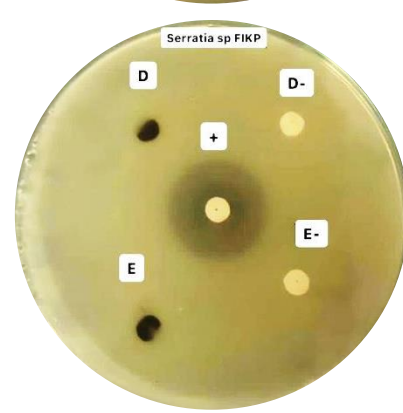
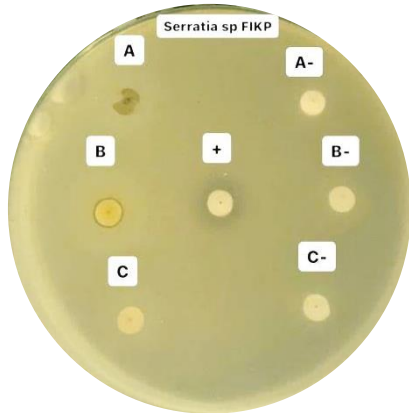
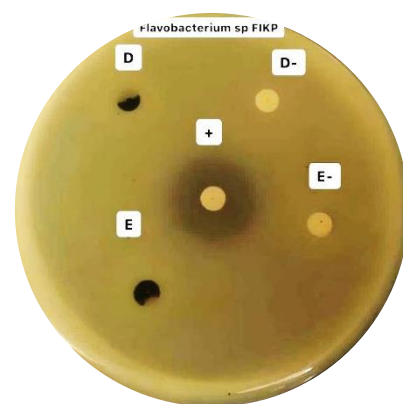
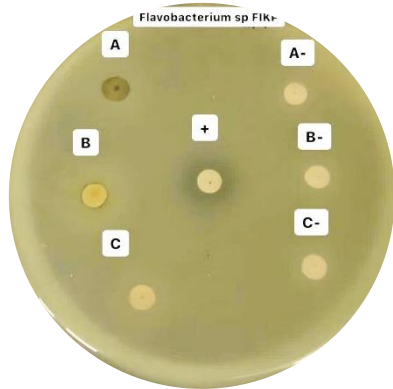
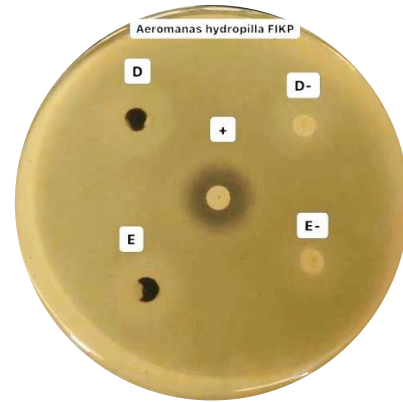
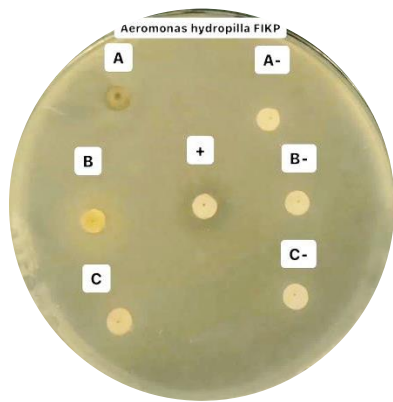
Tukey HSD

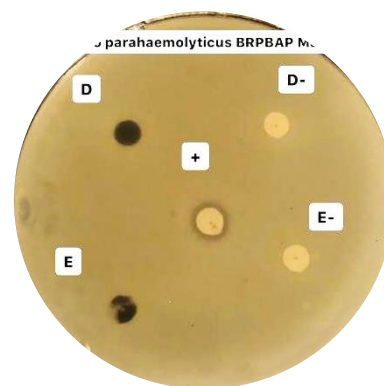
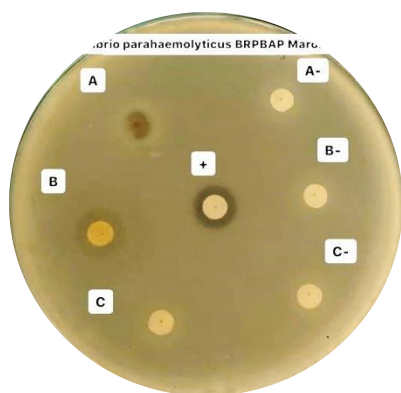
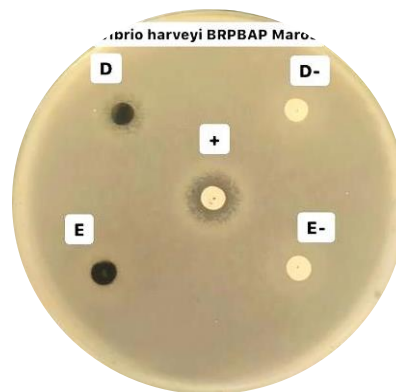
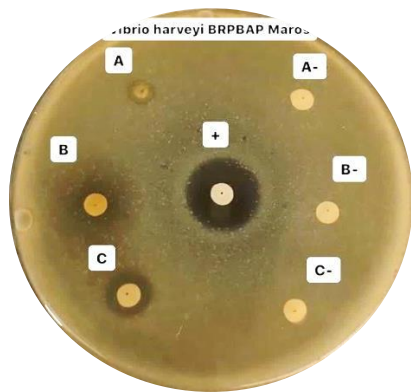
perlakuan	N	Subset for alpha = 0.05		
		1	2	3
kloroform	3	6,0000		
etil asetat	3	6,0000		
air	3	6,0000		
kontrol negatif	3	6,0000		
n-heksan	3		9,3333	
kontrol positif	3		10,0000	
metanol	3			11,3333
Sig.		1,000	,184	1,000

Means for groups in homogeneous subsets are displayed.

Lampiran 11. Dokumentasi hasil zona hambat pada ekstrak sargassum *polycystum* terhadap bakteri *Vibrio alginolyticus* FIKP, *Aeromonas hydrophilla* FIKP, *Flavobacterium* sp. FIKP, *Serratia* sp. FIKP, *Vibrio alginolyticus* BRPBAPPP, *Vibrio harveyi* BRPBAPPP dan *Vibrio parahaemolyticus* BRPBAPPP.







Keterangan: A: Ekstrak n-heksana A-: Kontrol negatif n-heksana
 B: Ekstrak metanol B-: Kontrol negatif metanol
 C: Ekstrak air C-: Kontrol negatif air
 D: Ekstrak kloroform D-: Kontrol negatif kloroform
 E: Ekstrak etil asetat E-: Kontrol negatif etil asetat
 + : Kontrol positif ciprofloxacin

Lampiran 12. Dokumentasi kegiatan

