

1. Perlu dilakukan uji stabilitas sediaan, uji iritasi pada mukosa dari sediaan *microsponge* gel vagina dari ITZ
2. Perlu dilakukan uji aktivitas antifungi dalam formulasi *microsponge* ITZ pada sediaan gel vagina.
3. Perlu dilakukan penentuan profil kinetika secara *in-vivo* pada hewan coba yang sesuai dari sediaan *microsponge* gel vagina dari ITZ

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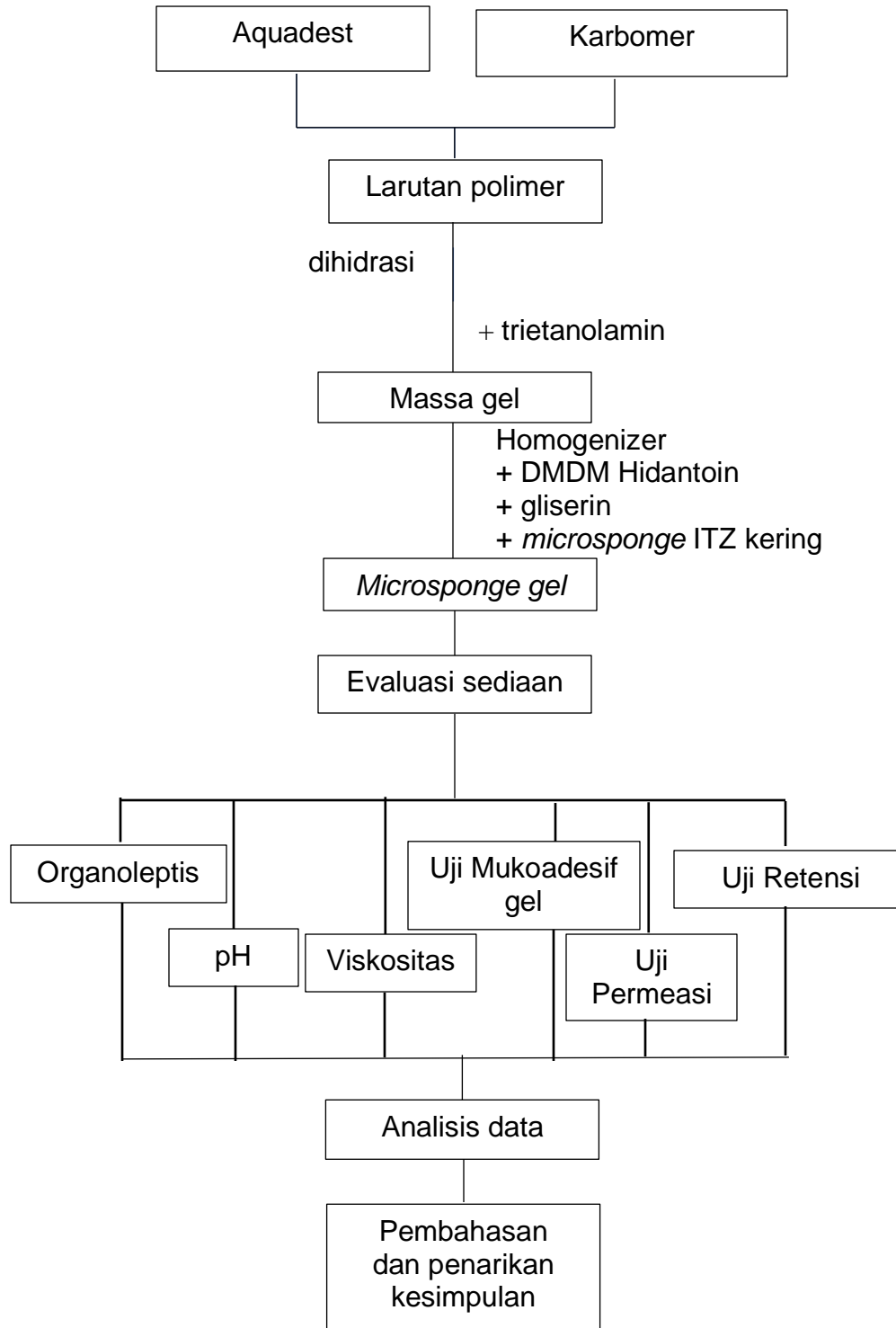
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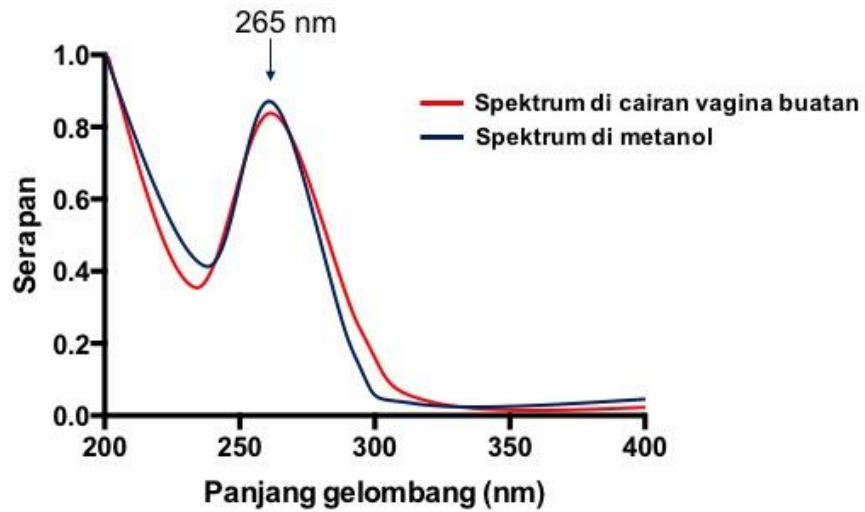


**LAMPIRAN I**  
**SKEMA KERJA**



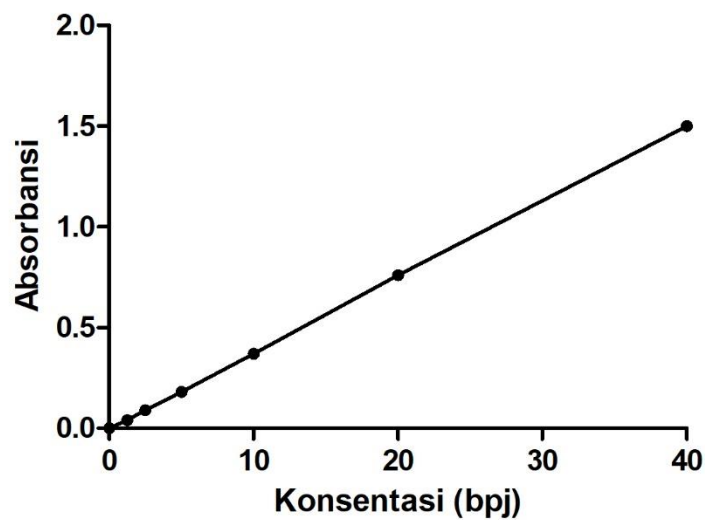
## Lampiran 2. Panjang Gelombang Maksimum dan Kurva Baku

### Lampiran 2.1. Panjang Gelombang Maksimum

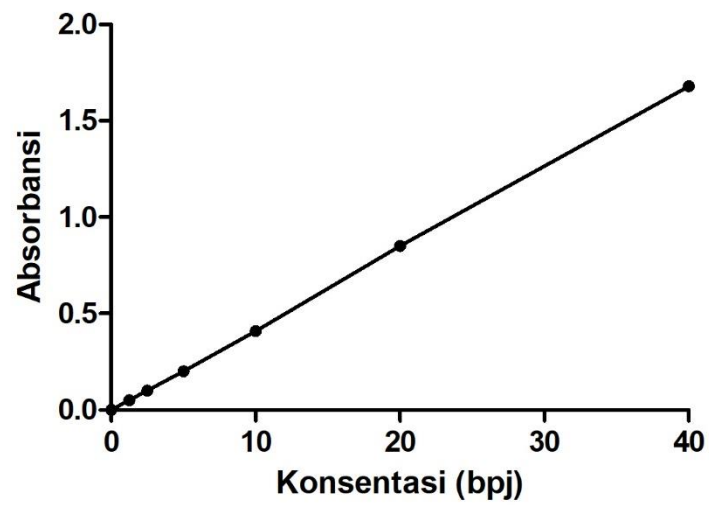


Gambar 19. Panjang gelombang maksimum

### Lampiran 2.2. Kurva Baku



Gambar 20. Kurva Baku Cairan vagina



Gambar 21. Kurva baku metanol

### Lampiran 3. Perhitungan

#### a. Uji Permeasi Vagina

1 mL formula tiap pengujian mengandung 10 mg itrakonazol

Persamaan:  $y=0,0378x-0,0058$

Dimana:  $y$ =serapan;  $x$ = konsentrasi

- Pada F1 Replikasi 1 jam 0,5 diperoleh serapan =0,131

Sehingga, untuk mendapatkan konsentrasi:

$$0,131 = 0,0378 x - 0,0058$$

$$x = \frac{0,131 + 0,0058}{0,0378}$$

$$x = 3,61 \mu\text{g/mL}$$

Konsentrasi dalam 1,5 mL =  $3,61 \times 1,5 = 5,41 \mu\text{g/mL}$

Konsentrasi dalam 28 mL =  $\frac{3,61904762 \times 28 \text{ mL}}{1000} = 0,10 \text{ mg}$

Faktor koreksi =  $\frac{\text{Konsentrasi jam sebelumnya}}{1000} + \text{Faktor koreksi jam sebelumnya}$

$$= \frac{0 \mu\text{g}}{1000} + 0$$

$$= 0$$

Jumlah terpermeasi = Konsentrasi dalam 28 mL + Faktor koreksi

$$= 0,10 \text{ mg} + 0$$

$$= 0,10 \text{ mg}$$

Kecepatan laju permease sediaan (fluks,  $J$ ,  $\mu\text{g/cm}^2/\text{jam}^{-1}$ ) dihitung dengan rumus:

$$J = \frac{M}{S \times t}$$

Dimana :

$J$  = Fluks ( $\mu\text{g/cm}^2/\text{jam}^{-1}$ )

S = Luas area difusi (cm<sup>2</sup>)

M = Jumlah zat yang terpermeasi (µg)

t = Waktu (jam)

Maka,

$$J = \frac{0,0001 \mu\text{g}}{4,9 \text{ cm}^2 \times 0,5 \text{ jam}} = 0,00004082 \mu\text{g/cm}^2/\text{jam}^{-1}$$

- Pada F1 Replikasi 1 jam 0,75 diperoleh serapan = 0,239

Sehingga, untuk mendapatkan konsentrasi:

$$0,239 = 0,0378 \times 0,0058$$

$$x = \frac{0,239 + 0,0058}{0,0378}$$

$$x = 6,46 \mu\text{g/mL}$$

Konsentrasi dalam 1,5 mL = 6,46 x 1,5 = 9,69 µg

$$\text{Konsentrasi dalam 28 mL} = \frac{6,46 \times 28 \text{ mL}}{1000} = 0,18 \text{ mg}$$

Faktor koreksi bernilai 0,01, diperoleh dari,

$$\text{Faktor koreksi} = \frac{\text{Konsentrasi jam sebelumnya}}{1000}$$

+ Faktor koreksi jam sebelumnya pada replikasi yang sama.

$$= \frac{5,41 \mu\text{g}}{1000} + 0$$

$$= 0,01 \text{ mg}$$

Jumlah terpermeasi = Konsentrasi dalam 28 mL + Faktor koreksi

$$= 0,18 \text{ mg} + 0,01$$

$$= 0,19 \text{ mg}$$

Kecepatan laju permeasi sediaan (fluks,  $J$ ,  $\mu\text{g}/\text{cm}^2/\text{jam}^{-1}$ ) :

$$J = \frac{0,00019 \mu\text{g}}{4,9 \text{ cm}^2 \times 0,75 \text{ jam}} = 0,0000517 \mu\text{g}/\text{cm}^2/\text{jam}^{-1}$$

### **b. Uji Retensi Vagina**

Persamaan:  $y = 0,0424x - 0,0065$

Dimana:  $y = \text{serapan}$ ;  $x = \text{konsentrasi}$

Pada F3 Replikasi 1, diperoleh serapan = 1,218

Sehingga, untuk mendapatkan konsentrasi:

$$1,218 = 0,0424x - 0,0065$$

$$x = \frac{1,218 + 0,0065}{0,0424}$$

$$x = 28,88 \mu\text{g}/\text{mL}$$

$$\text{Jumlah ITZ yang terdeposisi} = \frac{28,88}{1000} \times 50 \text{ mL} \times 30 \text{ mL} = 1,44 \text{ mg}$$

## Lampiran 4. Tabel Hasil Evaluasi

### Lampiran 4.1 Hasil Uji pH

Replikasi	F1	F2	F3	F4
1	6,98	7,03	7,12	7,31
2	6,79	6,89	6,94	7,11
3	7,03	7,14	7,05	7,07
Rata-rata±SD	6,93 ± 0,13	7,02 ± 0,13	7,04 ± 0,09	7,16 ± 0,13

### Lampiran 4.2 Hasil Uji Viskositas

Replikasi	F1	F2	F3	F4
1	26200	31400	35600	47600
2	24200	32700	38000	43700
3	25300	32100	38400	48800
Rata-rata ± SD	25233,33 ± 1001,67	32066,67 ± 650,64	37333,33 ± 1514,38	46700 ± 2666,46

### Lampiran 4.3 Hasil Uji Waktu Mukoadhesif

Replikasi	Waktu (jam)			
	F1	F2	F3	F4
1	2,5	3,9	6,3	6,7
2	2,1	4,2	6,2	6,3
3	2,3	4,1	6,4	6,4
Rata-rata ± SD	2,3 ± 0,20	4,07 ± 0,15	6,30 ± 0,10	6,47 ± 0,21

#### Lampiran 4.4 Hasil Uji Permeasi

##### (a) Formula Kontrol

Jam	Replikasi	Serapan	Konsentrasi ( $\mu\text{g/ml}$ )	1.5 ml ( $\mu\text{g}$ )	28 ml (mg)	Faktor koreksi	Jumlah Terpemeasi (mg)	Rata-rata $\pm$ SD
0,25	1	0,149	3,78	5,67	0,11	0,00	0,11	0,25 $\pm$ 0,12
	2	0,139	10,68	16,03	0,30	0,00	0,30	
	3	0,154	11,90	17,86	0,33	0,00	0,33	
0,5	1	0,272	21,27	31,90	0,60	0,01	0,60	0,66 $\pm$ 0,05
	2	0,313	24,53	36,79	0,69	0,02	0,70	
	3	0,303	23,71	35,57	0,66	0,02	0,68	
0,75	1	0,369	29,00	43,51	0,81	0,04	0,85	0,95 $\pm$ 0,11
	2	0,457	35,93	53,89	1,01	0,05	1,06	
	3	0,400	31,45	47,17	0,88	0,05	0,93	
1	1	0,508	40,00	60,00	1,12	0,08	1,20	1,25 $\pm$ 0,05
	2	0,523	41,22	61,83	1,15	0,11	1,26	
	3	0,544	42,85	64,27	1,20	0,10	1,30	
2	1	0,605	47,73	71,60	1,34	0,14	1,48	1,51 $\pm$ 0,03
	2	0,621	48,95	73,43	1,37	0,17	1,54	
	3	0,610	48,14	72,21	1,35	0,16	1,51	
3	1	0,826	65,22	97,83	1,83	0,21	2,04	2,05 $\pm$ 0,04
	2	0,838	66,16	99,24	1,85	0,24	2,09	
	3	0,808	63,80	95,71	1,79	0,24	2,02	
4	1	0,944	74,65	111,97	2,09	0,31	2,40	2,42 $\pm$ 0,03
	2	0,956	75,59	113,39	2,12	0,34	2,46	



	3	0,933	73,70	110,56	2,06	0,33	2,40	
	1	0,968	76,53	114,80	2,14	0,42	2,57	
5	2	1,004	79,36	119,04	2,22	0,45	2,68	2,63 ± 0,06
	3	0,998	78,89	118,34	2,21	0,44	2,65	
	1	1,016	80,30	120,46	2,25	0,54	2,79	
6	2	1,004	79,36	119,04	2,22	0,57	2,80	2,76 ± 0,08
	3	0,944	74,65	111,97	2,09	0,56	2,65	

## (b) Formula 1 (F1)

Jam	Replikasi	Serapan	Konsentrasi (µg/ml)	1.5 ml (µg)	28 ml (mg)	Faktor koreksi	Jumlah Terpemeasi (mg)	Rata-Rata ± SD
	1	0,000	0,00	0,00	0,00	0,00	0,00	
0,25	2	0,000	0,00	0,00	0,00	0,00	0,00	0
	3	0,000	0,00	0,00	0,00	0,00	0,00	
	1	0,131	3,61	5,41	0,10	0,00	0,10	
0,5	2	0,122	3,37	5,05	0,09	0,00	0,09	0,10 ± 0,01
	3	0,135	3,72	5,59	0,10	0,00	0,10	
	1	0,239	6,46	9,69	0,18	0,01	0,19	
0,75	2	0,275	7,42	11,12	0,21	0,01	0,21	0,20 ± 0,01
	3	0,266	7,18	10,77	0,20	0,01	0,21	
	1	0,324	8,72	13,09	0,24	0,02	0,26	
1	2	0,401	10,75	16,12	0,30	0,02	0,32	0,29 ± 0,03
	3	0,351	9,44	14,16	0,26	0,02	0,28	
	1	0,446	11,94	17,91	0,33	0,03	0,36	
2	2	0,459	12,30	18,44	0,34	0,03	0,38	0,38 ± 0,01

	3	0,477	12,77	19,16	0,36	0,03	0,39	
	1	0,531	14,20	21,30	0,40	0,05	0,44	
3	2	0,545	14,56	21,84	0,41	0,05	0,46	0,45 ± 0,01
	3	0,536	14,32	21,48	0,40	0,05	0,45	
	1	0,626	16,70	25,05	0,47	0,07	0,54	
4	2	0,635	16,94	25,41	0,47	0,07	0,55	0,54 ± 0,01
	3	0,612	16,34	24,52	0,46	0,07	0,53	
	1	0,716	19,08	28,62	0,53	0,09	0,63	
5	2	0,725	19,32	28,98	0,54	0,10	0,64	0,63 ± 0,01
	3	0,707	18,84	28,27	0,53	0,10	0,62	
	1	0,734	19,56	29,34	0,55	0,12	0,67	
6	2	0,761	20,27	30,41	0,57	0,13	0,69	0,68 ± 0,01
	3	0,756	20,15	30,23	0,56	0,12	0,69	

## (c) Formula 2 (F2)

Jam	Replikasi	Serapan	Konsentrasi (µg/ml)	1.5 ml (µg)	28 ml (mg)	Faktor koreksi	Jumlah Terpemeasi (mg)	Rata-Rata±SD
0,25	1	0,000	0,00	0,00	0,00	0,00	0,00	
	2	0,000	0,00	0,00	0,00	0,00	0,00	0
	3	0,000	0,00	0,00	0,00	0,00	0,00	
0,5	1	0,000	0,00	0,00	0,00	0,00	0,00	
	2	0,000	0,00	0,00	0,00	0,00	0,00	0
	3	0,000	0,00	0,00	0,00	0,00	0,00	
0,75	1	0,133	3,67	5,51	0,10	0,00	0,10	0,10 ± 0,01

	2	0,124	3,43	5,15	0,10	0,00	0,10	
	3	0,138	3,80	5,69	0,11	0,00	0,11	
	1	0,243	6,59	9,88	0,18	0,01	0,19	
1	2	0,280	7,56	11,34	0,21	0,01	0,22	0,21 ± 0,01
	3	0,271	7,32	10,98	0,20	0,01	0,21	
	1	0,330	8,90	13,34	0,25	0,02	0,26	
2	2	0,409	10,96	16,44	0,31	0,02	0,32	0,29 ± 0,03
	3	0,358	9,62	14,44	0,27	0,02	0,29	
	1	0,386	10,36	15,55	0,29	0,03	0,32	
3	2	0,398	10,67	16,01	0,30	0,03	0,33	0,33 ± 0,01
	3	0,413	11,09	16,63	0,31	0,03	0,34	
	1	0,460	12,32	18,49	0,35	0,04	0,39	
4	2	0,472	12,63	18,95	0,35	0,05	0,40	0,40 ± 0,01
	3	0,464	12,43	18,64	0,35	0,05	0,40	
	1	0,542	14,49	21,74	0,41	0,06	0,47	
5	2	0,550	14,70	22,05	0,41	0,07	0,48	0,47 ± 0,01
	3	0,530	14,18	21,27	0,40	0,07	0,46	
	1	0,620	16,55	24,83	0,46	0,08	0,55	
6	2	0,628	16,76	25,14	0,47	0,09	0,56	0,55 ± 0,01
	3	0,612	16,35	24,52	0,46	0,09	0,55	

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## (d) Formula 3 (F3)

Jam	Replikasi	Serapan	Konsentrasi ( $\mu\text{g/ml}$ )	1.5 ml ( $\mu\text{g}$ )	28 ml (mg)	Faktor koreksi	Jumlah Terpemeasi (mg)	Rata-Rata $\pm$ SD
0,25	1	0,000	0,00	0,00	0,00	0,00	0,00	0
	2	0,000	0,00	0,00	0,00	0,00	0,00	
	3	0,000	0,00	0,00	0,00	0,00	0,00	
0,5	1	0,000	0,00	0,00	0,00	0,00	0,00	0
	2	0,000	0,00	0,00	0,00	0,00	0,00	
	3	0,000	0,00	0,00	0,00	0,00	0,00	
0,75	1	0,000	0,00	0,00	0,00	0,00	0,00	0
	2	0,000	0,00	0,00	0,00	0,00	0,00	
	3	0,000	0,00	0,00	0,00	0,00	0,00	
1	1	0,000	0,00	0,00	0,00	0,00	0,00	0
	2	0,000	0,00	0,00	0,00	0,00	0,00	
	3	0,000	0,00	0,00	0,00	0,00	0,00	
2	1	0,159	4,35	6,53	0,12	0,00	0,12	0,13 $\pm$ 0,01
	2	0,196	5,34	8,01	0,15	0,00	0,15	
	3	0,172	4,70	7,05	0,13	0,00	0,13	
3	1	0,185	5,05	7,58	0,14	0,01	0,15	0,15 $\pm$ 0,01
	2	0,191	5,20	7,81	0,15	0,01	0,15	
	3	0,198	5,40	8,10	0,15	0,01	0,16	
4	1	0,216	5,88	8,82	0,16	0,01	0,18	0,18 $\pm$ 0,00
	2	0,222	6,02	9,04	0,17	0,02	0,18	
	3	0,218	5,93	8,89	0,17	0,02	0,18	

5	1	0,238	6,46	9,69	0,18	0,02	0,20	0,22 ± 0,01
	2	0,274	7,41	11,12	0,21	0,02	0,23	
	3	0,265	7,17	10,76	0,20	0,02	0,22	
6	1	0,324	8,72	13,08	0,24	0,03	0,28	0,30 ± 0,03
	2	0,400	10,74	16,12	0,30	0,04	0,34	
	3	0,351	9,44	14,15	0,26	0,03	0,30	

## (e) Formula 4 (F4)

Jam	Replikasi	Serapan	Konsentrasi ( $\mu\text{g/ml}$ )	1.5 ml ( $\mu\text{g}$ )	28 ml (mg)	Faktor koreksi	Jumlah Terpemeasi (mg)	Rata-rata $\pm$ SD
0,25	1	0,000	0,00	0,00	0,00	0,00	0,00	0
	2	0,000	0,00	0,00	0,00	0,00	0,00	
	3	0,000	0,00	0,00	0,00	0,00	0,00	
0,5	1	0,000	0,00	0,00	0,00	0,00	0,00	0
	2	0,000	0,00	0,00	0,00	0,00	0,00	
	3	0,000	0,00	0,00	0,00	0,00	0,00	
0,75	1	0,000	0,00	0,00	0,00	0,00	0,00	0
	2	0,000	0,00	0,00	0,00	0,00	0,00	
	3	0,000	0,00	0,00	0,00	0,00	0,00	
1	1	0,000	0,00	0,00	0,00	0,00	0,00	0
	2	0,000	0,00	0,00	0,00	0,00	0,00	
	3	0,000	0,00	0,00	0,00	0,00	0,00	
2	1	0,000	0,00	0,00	0,00	0,00	0,00	0

	2	0,000	0,00	0,00	0,00	0,00	0,00	
	3	0,000	0,00	0,00	0,00	0,00	0,00	
	1	0,000	0,00	0,00	0,00	0,00	0,00	
3	2	0,000	0,00	0,00	0,00	0,00	0,00	0
	3	0,000	0,00	0,00	0,00	0,00	0,00	
	1	0,119	3,30	4,95	0,09	0,00	0,09	
4	2	0,147	4,04	6,07	0,11	0,00	0,11	$0,10 \pm 0,01$
	3	0,129	3,56	5,34	0,10	0,00	0,10	
	1	0,139	3,83	5,74	0,11	0,00	0,11	
5	2	0,143	3,94	5,91	0,11	0,01	0,12	$0,12 \pm 0,00$
	3	0,149	4,09	6,13	0,11	0,01	0,12	
	1	0,158	4,33	6,50	0,12	0,01	0,13	
6	2	0,162	4,44	6,66	0,12	0,01	0,14	$0,13 \pm 0,00$
	3	0,159	4,37	6,55	0,12	0,01	0,13	

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### Lampiran 4.5 Hasil Uji Retensi

Formula	Replikasi	Serapan	Konsentrasi ( $\mu\text{g/ml}$ )	Jumlah ITZ terdeposisi setelah 6 jam (mg)	Rata-rat $\pm$ SD
KONTROL	1	0,050	1,32	0,07	0,06 $\pm$ 0,00
	2	0,042	1,14	0,05	
	3	0,048	1,28	0,06	
F1	1	0,297	7,16	0,35	0,38 $\pm$ 0,02
	2	0,327	7,87	0,40	
	3	0,314	7,54	0,37	
F2	1	0,471	11,26	0,56	0,54 $\pm$ 0,03
	2	0,431	10,30	0,40	
	3	0,464	11,08	0,56	
F3	1	1,218	28,88	1,44	1,45 $\pm$ 0,03
	2	1,248	29,60	1,48	
	3	1,197	28,38	1,42	
F4	1	0,041	1,10	0,06	0,06 $\pm$ 0,00
	2	0,047	1,25	0,06	
	3	0,039	1,07	0,06	

## Lampiran 5. Data Hasil Analisis Statistika

(a) pH

**Oneway**

### ANOVA

pH

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.081	3	.027	1.911	.206
Within Groups	.113	8	.014		
Total	.194	11			

(b) Viskositas

**Oneway**

### ANOVA

Viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	737646666.667	3	245882222.222	90.815	.000
Within Groups	21660000.000	8	2707500.000		
Total	759306666.667	11			

### Post Hoc Tests

#### Multiple Comparisons

Dependent Variable: Viskositas

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula 1	Formula 2	-6833.33333*	1343.50288	.004	-11135.7025	-2530.9642
	Formula 3	-12100.00000*	1343.50288	.000	-16402.3692	-7797.6308
	Formula 4	-21466.66667*	1343.50288	.000	-25769.0358	-17164.2975
Formula 2	Formula 1	6833.33333*	1343.50288	.004	2530.9642	11135.7025



	Formula 3	-5266.66667*	1343.50288	.019	-9569.0358	-964.2975
	Formula 4	-14633.33333*	1343.50288	.000	-18935.7025	-10330.9642
Formula 3	Formula 1	12100.00000*	1343.50288	.000	7797.6308	16402.3692
	Formula 2	5266.66667*	1343.50288	.019	964.2975	9569.0358
	Formula 4	-9366.66667*	1343.50288	.001	-13669.0358	-5064.2975
Formula 4	Formula 1	21466.66667*	1343.50288	.000	17164.2975	25769.0358
	Formula 2	14633.33333*	1343.50288	.000	10330.9642	18935.7025
	Formula 3	9366.66667*	1343.50288	.001	5064.2975	13669.0358

(c) Waktu Mukoadhesif  
Kruskal-Wallis Test

**Ranks**

Formula	N	Mean Rank
Waktu Mukoadhesif Formula 1	3	2.00
Formula 2	3	5.00
Formula 3	3	8.67
Formula 4	3	10.33
Total	12	

**Test Statistics<sup>a,b</sup>**

	Waktu Mukoadhesif
Chi-Square	9.735
Df	3
Asymp. Sig.	.021

**Post Hoc Tests**

**Multiple Comparisons**

Dependent Variable: WaktuMukoadhesif

Tukey HSD

(I) Formula	(J) Formula	Std. Error	Sig.	95% Confidence Interval
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		Mean Difference (I- J)			Lower Bound	Upper Bound
Formula 1	Formula 2	-1.7667*	.1394	.000	-2.213	-1.320
	Formula 3	-4.0000*	.1394	.000	-4.447	-3.553
	Formula 4	-4.1667*	.1394	.000	-4.613	-3.720
Formula 2	Formula 1	1.7667*	.1394	.000	1.320	2.213
	Formula 3	-2.2333*	.1394	.000	-2.680	-1.787
	Formula 4	-2.4000*	.1394	.000	-2.847	-1.953
Formula 3	Formula 1	4.0000*	.1394	.000	3.553	4.447
	Formula 2	2.2333*	.1394	.000	1.787	2.680
	Formula 4	-.1667	.1394	.646	-.613	.280
Formula 4	Formula 1	4.1667*	.1394	.000	3.720	4.613
	Formula 2	2.4000*	.1394	.000	1.953	2.847
	Formula 3	.1667	.1394	.646	-.280	.613

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

(d) Permeasi

### Kruskal-Wallis Test

#### Ranks

Formula		N	Mean Rank
Permeasi	Kontrol	3	14.00
	Formula 1	3	11.00
	Formula 2	3	8.00
	Formula 3	3	5.00
	Formula 4	3	2.00
Total		15	

#### Test Statistics<sup>a,b</sup>

Permeasi	
Chi-Square	13.573
Df	4

Asymp. Sig.	.009
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a. Kruskal Wallis Test

b. Grouping Variable:

Formula

## Post Hoc Tests

### Multiple Comparisons

Dependent Variable: Permeasi

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Kontrol	Formula 1	2.06333*	.03300	.000	1.9547	2.1719
	Formula 2	2.19333*	.03300	.000	2.0847	2.3019
	Formula 3	2.44000*	.03300	.000	2.3314	2.5486
	Formula 4	2.61333*	.03300	.000	2.5047	2.7219
Formula 1	Kontrol	-2.06333*	.03300	.000	-2.1719	-1.9547
	Formula 2	.13000*	.03300	.018	.0214	.2386
	Formula 3	.37667*	.03300	.000	.2681	.4853
	Formula 4	.55000*	.03300	.000	.4414	.6586
Formula 2	Kontrol	-2.19333*	.03300	.000	-2.3019	-2.0847
	Formula 1	-.13000*	.03300	.018	-.2386	-.0214
	Formula 3	.24667*	.03300	.000	.1381	.3553
	Formula 4	.42000*	.03300	.000	.3114	.5286
Formula 3	Kontrol	-2.44000*	.03300	.000	-2.5486	-2.3314
	Formula 1	-.37667*	.03300	.000	-.4853	-.2681
	Formula 2	-.24667*	.03300	.000	-.3553	-.1381
	Formula 4	.17333*	.03300	.003	.0647	.2819
Formula 4	Kontrol	-2.61333*	.03300	.000	-2.7219	-2.5047
	Formula 1	-.55000*	.03300	.000	-.6586	-.4414
	Formula 2	-.42000*	.03300	.000	-.5286	-.3114
	Formula 3	-.17333*	.03300	.003	-.2819	-.0647

(e)

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

## (f) Retensi

Formula		N	Mean Rank
Retensi	Kontrol	3	4.33
	Formula 1	3	8.00
	Formula 2	3	11.00
	Formula 3	3	14.00
	Formula 4	3	2.67
	Total	15	

	Retensi
Chi-Square	13.270
df	4
Asymp. Sig.	.010

a. Kruskal Wallis Test

b. Grouping Variable:

Formula

### Post Hoc Tests

#### Multiple Comparisons

Dependent Variable: Retensi

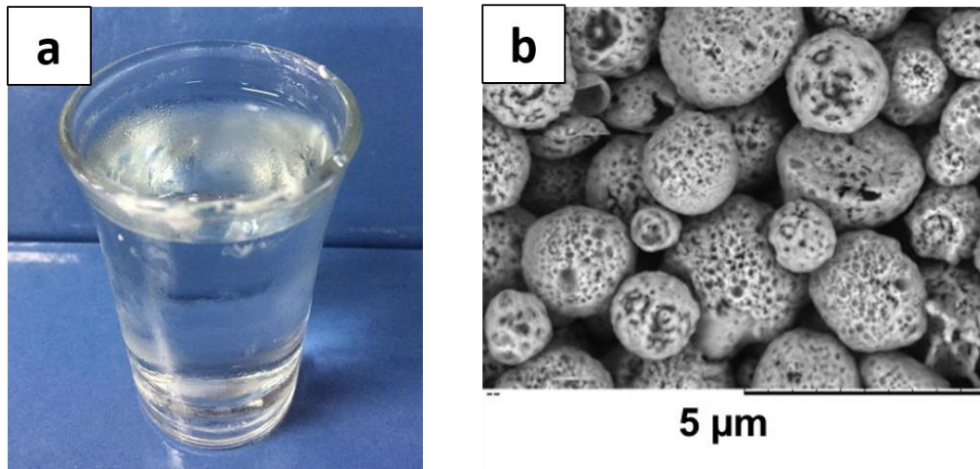
Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Kontrol	Formula 1	-.31333 <sup>*</sup>	.01491	.000	-.3624	-.2643
	Formula 2	-.48000 <sup>*</sup>	.01491	.000	-.5291	-.4309
	Formula 3	-1.38333 <sup>*</sup>	.01491	.000	-1.4324	-1.3343
	Formula 4	.00667	.01491	.990	-.0424	.0557
Formula 1	Kontrol	.31333 <sup>*</sup>	.01491	.000	.2643	.3624

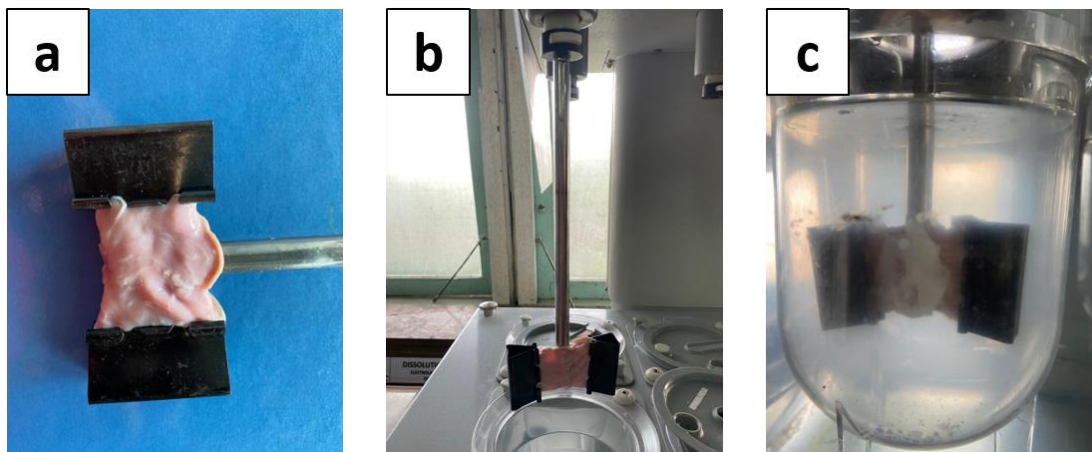
	Formula 2	-.16667*	.01491	.000	-.2157	-.1176
	Formula 3	-1.07000*	.01491	.000	-1.1191	-1.0209
	Formula 4	.32000*	.01491	.000	.2709	.3691
Formula 2	Kontrol	.48000*	.01491	.000	.4309	.5291
	Formula 1	.16667*	.01491	.000	.1176	.2157
	Formula 3	-.90333*	.01491	.000	-.9524	-.8543
	Formula 4	.48667*	.01491	.000	.4376	.5357
Formula 3	Kontrol	1.38333*	.01491	.000	1.3343	1.4324
	Formula 1	1.07000*	.01491	.000	1.0209	1.1191
	Formula 2	.90333*	.01491	.000	.8543	.9524
	Formula 4	1.39000*	.01491	.000	1.3409	1.4391
Formula 4	Kontrol	-.00667	.01491	.990	-.0557	.0424
	Formula 1	-.32000*	.01491	.000	-.3691	-.2709
	Formula 2	-.48667*	.01491	.000	-.5357	-.4376
	Formula 3	-1.39000*	.01491	.000	-1.4391	-1.3409

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

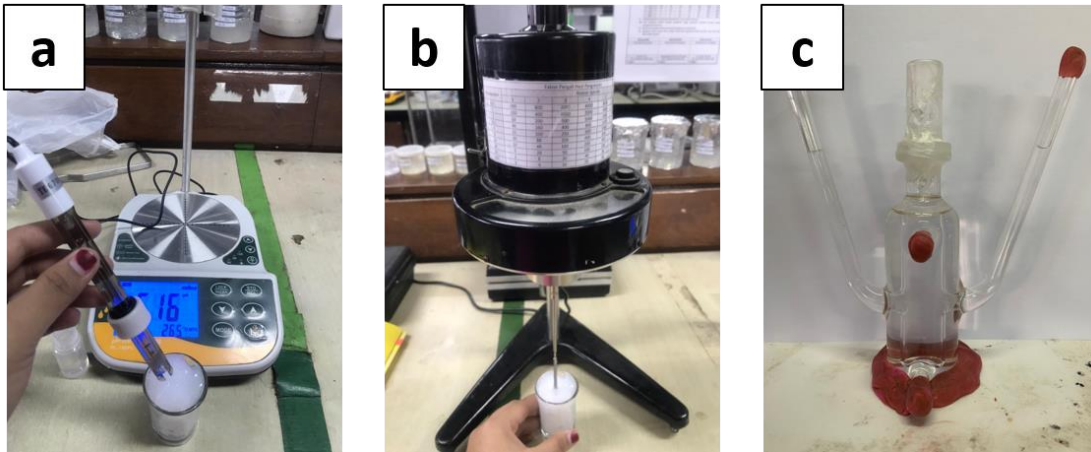
## Lampiran 6. Gambar Penelitian



Gambar 22. (a) Sediaan basis gel tanpa *microsponge* ITZ (b) Penampakan morfologi *microsponge* ITZ



Gambar 23. Tahapan uji mukoadhesif gel (a) penjepitan pada *paddle*, (b) pemasangan *paddle* pada alat disolusi, (c) proses uji mukoadhesif dengan *rotating cylinder method*



**Gambar 24. (a) evaluasi pH, (b) evaluasi viskositas, (c) aparatus sel difusi Franz**