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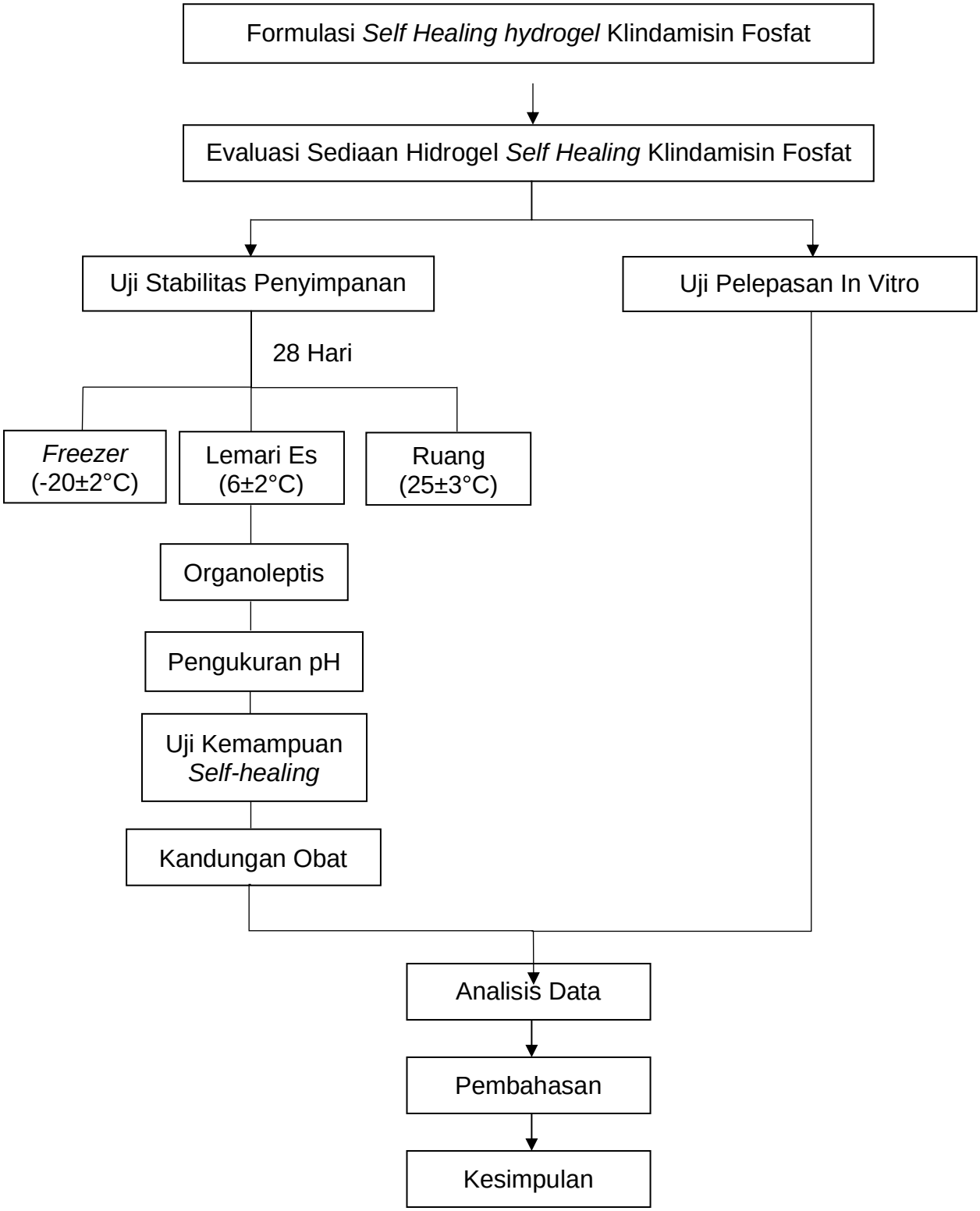
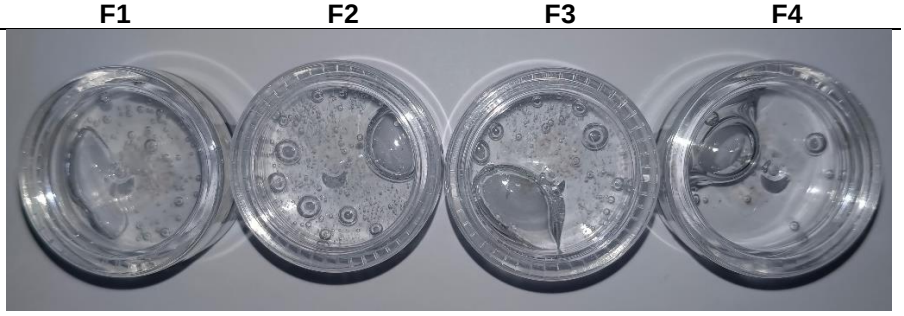
LAMPIRAN

Lampiran 1. Skema kerja umum

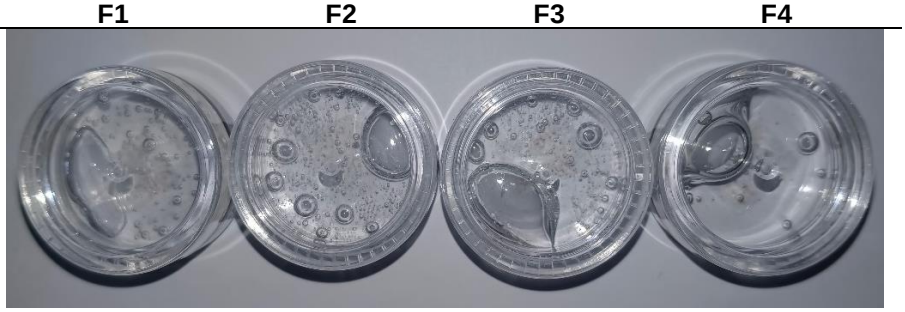
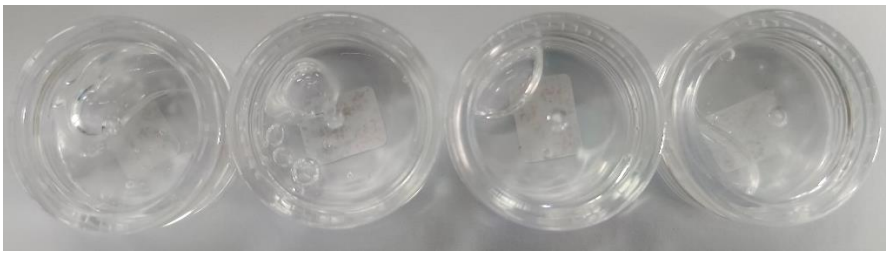
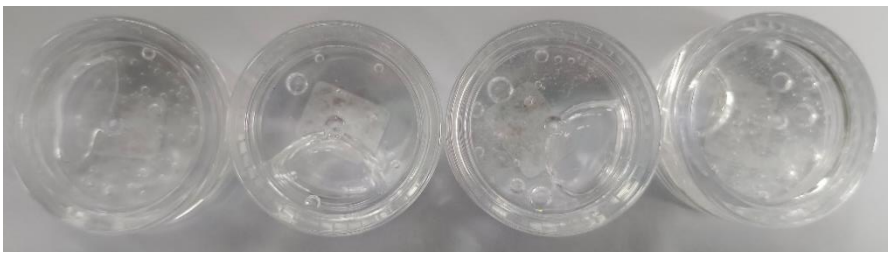


Lampiran 2. Hasil uji stabilitas organoleptis

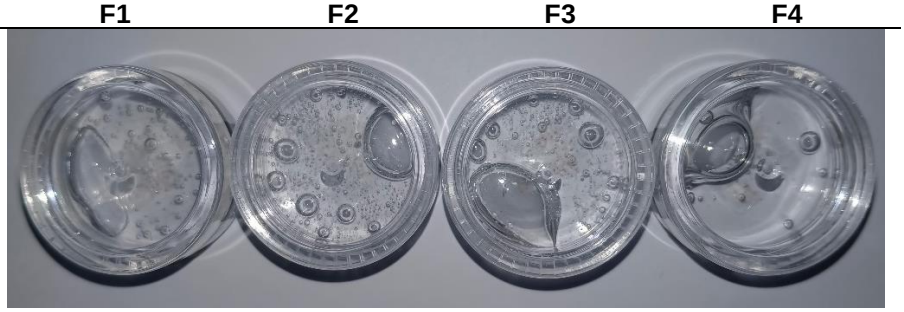
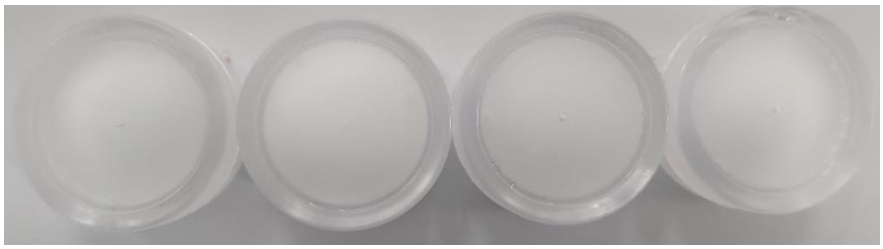
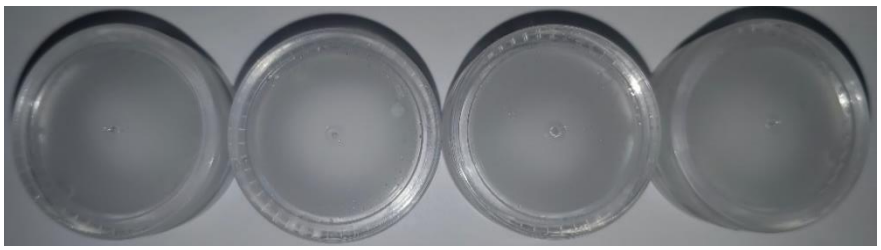
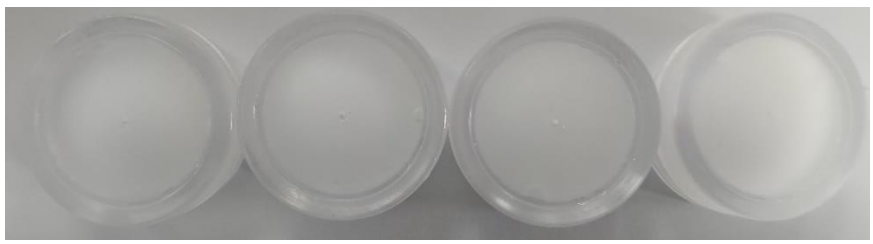
Tabel 5. Hasil organoleptis suhu 25±3°C

Pengamatan	Formula Sediaan *Self healing hydrogel*			
	F1	F2	F3	F4
Hari ke-0				
Hari ke-7				
Hari ke-14				
Hari ke-28				

Tabel 6. Hasil organoleptis suhu 6±2°C

Pengamatan	Formula Sediaan *Self healing hydrogel*			
	F1	F2	F3	F4
Hari ke-0				
Hari ke-7				
Hari ke-14				
Hari ke-28				

Tabel 7. Hasil organoleptis suhu -20±2°C

Pengamatan	Formula Sediaan *Self healing hydrogel*			
	F1	F2	F3	F4
Hari ke-0				
Hari ke-7				
Hari ke-14				
Hari ke-28				

Lampiran 3. Hasil uji stabilitas pH

Tabel 8. Data stabilitas pH suhu 25±3°C

Formula	Hari ke-			
	0	7	14	28
	7,62	7,86	8,62	8,76
F1	7,63	7,83	8,63	8,76
	7,70	7,80	8,63	8,77
Rata-rata ± SD	7,65 ± 0,04	7,83 ± 0,03	8,63 ± 0,01	8,76 ± 0,01
	7,76	7,79	8,67	8,76
F2	7,66	7,84	8,66	8,79
	7,61	7,88	8,68	8,77
Rata-rata ± SD	7,67 ± 0,07	7,84 ± 0,04	8,67 ± 0,01	8,77 ± 0,01
	7,93	7,96	8,79	8,87
F3	7,90	7,97	8,74	8,87
	7,91	7,98	8,74	8,88
Rata-rata ± SD	7,91 ± 0,01	7,97 ± 0,01	8,76 ± 0,03	8,87 ± 0,01
	7,87	7,95	8,59	8,78
F4	7,88	7,93	8,62	8,77
	7,79	7,94	8,63	8,77
Rata-rata ± SD	7,85 ± 0,05	7,94 ± 0,01	8,61 ± 0,02	8,77 ± 0,01

Tabel 9. Data stabilitas pH suhu 6±2°C

Formula	Hari ke-			
	0	7	14	28
	7,62	7,61	7,65	7,63
F1	7,63	7,69	7,66	7,68
	7,70	7,71	7,68	7,65
Rata-rata ± SD	7,65 ± 0,04	7,67 ± 0,05	7,66 ± 0,01	7,65 ± 0,02
	7,76	7,69	7,73	7,71
F2	7,66	7,68	7,71	7,62
	7,61	7,72	7,75	7,67
Rata-rata ± SD	7,67 ± 0,07	7,70 ± 0,02	7,73 ± 0,02	7,67 ± 0,04
	7,93	7,93	7,96	7,92
F3	7,90	7,94	7,99	7,94
	7,91	8,00	7,89	8,00
Rata-rata ± SD	7,91 ± 0,01	7,96 ± 0,03	7,94 ± 0,05	7,95 ± 0,04
	7,87	7,89	7,85	7,82
F4	7,88	7,81	7,86	7,88
	7,79	7,95	7,86	7,85
Rata-rata ± SD	7,85 ± 0,05	7,88 ± 0,07	7,86 ± 0,01	7,85 ± 0,03

Tabel 10. Data stabilitas pH suhu -20±2°C

Formula	Hari ke-			
	0	7	14	28
	7,62	7,63	7,62	7,59
F1	7,63	7,66	7,64	7,55
	7,70	7,68	7,61	7,51
Rata-rata ± SD	7,65 ± 0,04	7,66 ± 0,02	7,62 ± 0,01	7,55 ± 0,04
	7,76	7,79	7,66	7,61
F2	7,66	7,68	7,69	7,59
	7,61	7,65	7,68	7,62
Rata-rata ± SD	7,67 ± 0,07	7,71 ± 0,07	7,68 ± 0,01	7,61 ± 0,01
	7,93	7,92	7,89	7,80
F3	7,90	7,92	7,87	7,83
	7,91	7,94	7,93	7,89
Rata-rata ± SD	7,91 ± 0,01	7,93 ± 0,01	7,90 ± 0,03	7,84 ± 0,04
	7,87	7,87	7,88	7,88
F4	7,88	7,88	7,89	7,82
	7,79	7,85	7,80	7,83
Rata-rata ± SD	7,85 ± 0,05	7,87 ± 0,01	7,86 ± 0,05	7,84 ± 0,03

Lampiran 4. Hasil uji stabilitas kemampuan *self healing hydrogel*

Tabel 11. Data stabilitas waktu *self healing hydrogel* suhu 25±3°C

Formula	Hari ke-			
	0	7	14	28
	7,23	7,38	7,35	7,32
F1	6,87	7,55	6,92	6,80
	6,98	6,83	7,20	7,42
Rata-rata ± SD	7,27 ± 0,18	7,25 ± 0,38	7,16 ± 0,22	7,18 ± 0,33
	10,77	11,02	11,08	10,95
F2	9,97	10,97	10,80	9,77
	10,20	10,75	10,88	10,38
Rata-rata ± SD	10,31 ± 0,41	10,91 ± 0,14	10,92 ± 0,14	10,37 ± 0,59
	12,38	12,75	12,37	12,10
F3	12,73	11,90	11,95	12,47
	11,93	12,62	12,20	11,82
Rata-rata ± SD	12,35 ± 0,40	12,42 ± 0,46	12,17 ± 0,21	12,13 ± 0,33
	15,08	15,18	14,97	14,92
F4	14,60	15,10	14,25	15,03
	14,75	14,92	14,50	14,67
Rata-rata ± SD	14,81 ± 0,25	15,07 ± 0,13	14,57 ± 0,37	14,87 ± 0,18

Tabel 12. Data stabilitas waktu *self healing hydrogel* suhu 6±2°C

Formula	Hari ke-			
	0	**7**	**14**	**28**
	7,23	7,63	7,93	8,20
F1	6,87	7,33	7,73	7,92
	6,98	6,92	7,42	8,17
Rata-rata ± SD	7,27 ± 0,18	7,29 ± 0,36	7,69 ± 0,26	8,10 ± 0,15
	10,77	11,20	11,77	12,08
F2	9,97	11,08	11,40	11,70
	10,20	10,87	10,87	12,18
Rata-rata ± SD	10,31 ± 0,41	11,05 ± 0,17	11,35 ± 0,45	11,99 ± 0,25
	12,38	12,70	13,20	15,35
F3	12,73	12,97	12,78	14,80
	11,93	11,65	12,90	14,88
Rata-rata ± SD	12,35 ± 0,40	12,44 ± 0,70	12,96 ± 0,22	15,01 ± 0,30
	15,08	15,35	15,90	16,47
F4	14,60	15,03	15,62	15,97
	14,75	14,80	14,82	16,25
Rata-rata ± SD	14,81 ± 0,25	15,06 ± 0,28	15,45 ± 0,56	16,23 ± 0,25

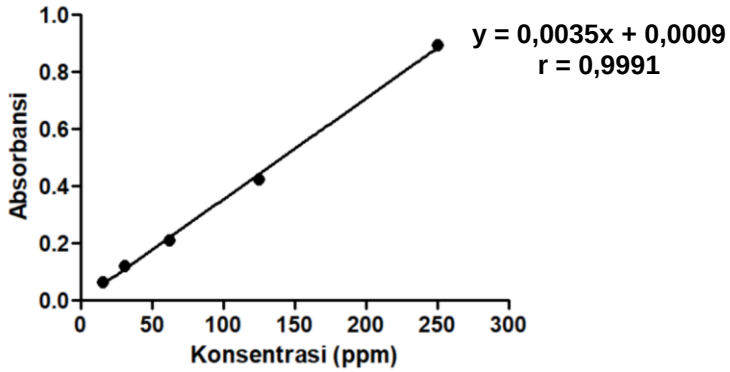
Tabel 13. Data stabilitas waktu *self healing hydrogel* suhu -20±2°C

Formula	Hari ke-			
	0	**7**	**14**	**28**
	7,23	7,92	8,63	9,35
F1	6,87	7,52	8,20	8,68
	6,98	8,12	8,75	9,17
Rata-rata ± SD	7,27 ± 0,18	7,85 ± 0,30	8,53 ± 0,29	9,07 ± 0,35
	10,77	11,63	12,10	12,90
F2	9,97	10,78	11,73	12,33
	10,20	11,75	11,22	12,72
Rata-rata ± SD	10,31 ± 0,41	11,39 ± 0,53	11,68 ± 0,44	12,65 ± 0,29
	12,38	13,63	14,38	16,13
F3	12,73	12,85	14,03	15,92
	11,93	13,27	13,77	15,78
Rata-rata ± SD	12,35 ± 0,40	13,25 ± 0,39	14,06 ± 0,31	15,94 ± 0,18
	15,08	15,53	16,13	16,45
F4	14,60	15,20	15,75	16,17
	14,75	14,78	15,50	15,93
Rata-rata ± SD	14,81 ± 0,25	15,17 ± 0,38	15,79 ± 0,32	16,18 ± 0,26

Lampiran 5. Hasil uji stabilitas kandungan obat

Tabel 14. Kurva baku klindamisin fosfat

Konsentrasi (µg/ml)	Absorbansi
250	0,894
125	0,423
62,5	0,212
31,25	0,122
15,625	0,064



Gambar 12. Grafik kurva baku klindamisin fosfat

Tabel 15. Data stabilitas kandungan obat suhu 25±3°C

Formula	Hari ke-							
	0		7		14		28	
	Abs	%Kandungan obat	Abs	%Kandungan obat	Abs	%Kandungan obat	Abs	%Kandungan obat
	0,166	94,34	0,165	93,77	0,160	90,91	0,152	86,34
F1	0,168	95,49	0,166	94,34	0,162	92,06	0,148	84,06
	0,169	96,06	0,166	94,34	0,161	91,49	0,155	88,06
Rata-rata ± SD		95,30 ± 0,87		94,15 ± 0,33		91,49 ± 0,57		86,15 ± 2,01
	0,169	96,06	0,173	98,34	0,165	93,77	0,159	90,34
F2	0,172	97,77	0,174	98,91	0,167	94,91	0,163	92,63
	0,176	100,06	0,177	100,63	0,171	97,20	0,163	92,63
Rata-rata ± SD		97,96 ± 2,01		99,29 ± 1,19		95,29 ± 1,75		91,87 ± 1,32
	0,153	86,91	0,188	106,91	0,182	103,49	0,172	97,77
F3	0,189	107,49	0,186	105,77	0,179	101,77	0,174	98,91
	0,184	104,63	0,182	103,49	0,175	99,49	0,168	95,49
Rata-rata ± SD		99,68 ± 11,14		105,39 ± 1,75		101,58 ± 2,01		97,39 ± 1,75

Tabel 16. Data stabilitas kandungan obat suhu 6±2°C

Formula	Hari ke-							
	0		7		14		28	
	Abs	%Kandungan obat	Abs	%Kandungan obat	Abs	%Kandungan obat	Abs	%Kandungan obat
	0,166	94,34	0,171	97,2	0,172	97,77	0,173	98,34
F1	0,168	95,49	0,164	93,2	0,173	98,34	0,173	98,34
	0,169	96,06	0,172	97,771	0,168	95,49	0,175	99,49
Rata-rata ± SD		95,30 ± 0,87		96,06 ± 2,49		97,20 ± 1,51		98,72 ± 0,66
	0,169	96,06	0,165	93,771	0,174	98,91	0,177	100,63
F2	0,172	97,77	0,177	100,63	0,175	99,49	0,175	99,49
	0,176	100,06	0,178	101,2	0,178	101,20	0,180	102,34
Rata-rata ± SD		97,96 ± 2,01		98,53 ± 4,13		99,87 ± 1,19		100,82 ± 1,44
	0,153	86,91	0,186	105,77	0,189	107,49	0,189	107,49
F3	0,189	107,49	0,178	101,2	0,186	105,77	0,186	105,77
	0,184	104,63	0,166	94,343	0,172	97,77	0,172	97,77
Rata-rata ± SD		99,68 ± 11,14		100,44 ± 5,75		103,68 ± 5,19		103,68 ± 5,18

Tabel 17. Data stabilitas kandungan obat suhu -20±2°C

Formula	Hari ke-							
	0		7		14		28	
	Abs	%Kandungan obat	Abs	%Kandungan obat	Abs	%Kandungan obat	Abs	%Kandungan obat
	0,166	94,34	0,164	93,2	0,166	94,34	0,146	82,91
F1	0,168	95,49	0,168	95,49	0,167	94,91	0,152	86,34
	0,169	96,06	0,173	98,34	0,169	96,06	0,148	84,06
Rata-rata ± SD		95,30 ± 0,87		95,68 ± 2,58		95,10 ± 0,87		84,44 ± 1,75
	0,169	96,06	0,165	93,77	0,168	95,49	0,155	88,06
F2	0,172	97,77	0,177	100,63	0,176	100,06	0,149	84,63
	0,176	100,06	0,178	101,20	0,178	101,20	0,161	91,49
Rata-rata ± SD		97,96 ± 2,01		98,53 ± 4,13		98,91 ± 3,02		88,06 ± 3,43
	0,153	86,91	0,188	106,91	0,177	100,63	0,176	100,06
F3	0,189	107,49	0,178	101,20	0,181	102,91	0,169	96,06
	0,184	104,63	0,166	94,34	0,179	101,77	0,172	97,77
Rata-rata ± SD		99,68 ± 11,14		100,82 ± 6,29		101,77 ± 1,14		97,96 ± 2,01s

Lampiran 6. Hasil uji pelepasan obat secara *in vitro*

Tabel 18. Data uji pelepasan obat in vitro formula 1

Waktu (Jam)	Abs	Konsentrasi (µg/ml)	Faktor pengenceran	Jumlah yang terukur (mg) dalam 100 ml	Faktor koreksi (mg)	Total klindamisin yang terlepas (mg) per interval	%Pelepasan klindamisin	Rata-rata ± SD
	0,052	14,60	1	1,46	0	1,46	15,32	
0,25	0,057	16,03	1	1,60	0	1,60	16,82	16,32 ± 0,87
	0,057	16,03	1	1,60	0	1,60	16,82	
	0,090	25,46	1	2,55	0,01	2,56	26,87	
0,5	0,093	26,31	1	2,63	0,02	2,65	27,78	27,78 ± 0,91
	0,096	27,17	1	2,72	0,02	2,73	28,68	
	0,116	32,89	1	3,29	0,04	3,33	34,93	
1	0,119	33,74	1	3,37	0,04	3,42	35,85	35,85 ± 0,92
	0,122	34,60	1	3,46	0,04	3,50	36,76	
	0,191	54,31	1	5,43	0,07	5,50	57,76	
2	0,191	54,31	1	5,43	0,08	5,51	57,79	57,79 ± 0,03
	0,191	54,31	1	5,43	0,08	5,51	57,81	
	0,231	65,74	1	6,57	0,13	6,70	70,32	
3	0,231	65,74	1	6,57	0,13	6,70	70,35	70,75 ± 0,71
	0,235	66,89	1	6,69	0,13	6,82	71,57	
	0,235	66,89	1	6,69	0,19	6,88	72,21	
4	0,239	68,03	1	6,80	0,20	7,00	73,44	72,64 ± 0,69
	0,235	66,89	1	6,69	0,20	6,89	72,27	

Lanjutan Tabel 18. Data uji pelepasan obat *in vitro* formula 1

Waktu (Jam)	Abs	Konsentrasi (µg/ml)	Faktor pengenceran	Jumlah yang terukur (mg) dalam 100 ml	Faktor koreksi (mg)	Total klindamisin yang terlepas (mg) per interval	%Pelepasan klindamisin	Rata-rata ± SD
	0,247	70,31	1	7,03	0,26	7,29	76,51	
5	0,251	71,46	1	7,15	0,26	7,41	77,75	77,34 ± 0,72
	0,251	71,46	1	7,15	0,27	7,41	77,77	
	0,264	75,17	1	7,52	0,33	7,85	82,34	
6	0,264	75,17	1	7,52	0,34	7,85	82,40	81,49 ± 1,53
	0,255	72,60	1	7,26	0,34	7,60	79,72	

Tabel 19. Data uji pelepasan obat in vitro formula 2

Waktu (Jam)	Abs	Konsentrasi (µg/ml)	Faktor pengenceran	Jumlah yang terukur (mg) dalam 100 ml	Faktor koreksi (mg)	Total klindamisin yang terlepas (mg) per interval	%Pelepasan klindamisin	Rata-rata ± SD
	0,078	22,03	1	2,20	0	2,20	22,49	
0,25	0,075	21,17	1	2,12	0	2,12	21,61	22,68 ± 1,18
	0,083	23,46	1	2,35	0	2,35	23,95	
	0,123	34,89	1	3,49	0,02	3,51	35,84	
0,5	0,126	35,74	1	3,57	0,02	3,60	36,70	36,71 ± 0,88
	0,129	36,60	1	3,66	0,02	3,68	37,60	
	0,170	48,31	1	4,83	0,06	4,89	49,90	
1	0,173	49,17	1	4,92	0,06	4,97	50,78	50,50 ± 0,51
	0,173	49,17	1	4,92	0,06	4,98	50,81	
	0,216	61,46	1	6,15	0,11	6,25	63,81	
2	0,212	60,31	1	6,03	0,11	6,14	62,65	63,44 ± 0,68
	0,216	61,46	1	6,15	0,11	6,25	63,85	
	0,254	72,31	1	7,23	0,17	7,40	75,52	
3	0,258	73,46	1	7,35	0,17	7,51	76,69	76,12 ± 0,58
	0,256	72,89	1	7,28	0,17	7,46	76,15	
	0,279	79,46	1	7,95	0,24	8,18	83,55	
4	0,283	80,6	1	8,06	0,24	8,30	84,73	84,35 ± 0,69
	0,283	80,6	1	8,06	0,24	8,30	84,76	

Lanjutan Tabel 19. Data uji pelepasan obat *in vitro* formula 2

Waktu (Jam)	Abs	Konsentrasi (µg/ml)	Faktor pengenceran	Jumlah yang terukur (mg) dalam 100 ml	Faktor koreksi (mg)	Total klindamisin yang terlepas (mg) per interval	%Pelepasan klindamisin	Rata-rata ± SD
	0,305	86,89	1	8,69	0,32	9,01	91,95	
5	0,305	86,89	1	8,69	0,32	9,01	91,97	91,88 ± 0,14
	0,304	86,60	1	8,66	0,32	8,98	91,71	
	0,310	88,31	1	8,83	0,41	9,24	94,29	
6	0,310	88,31	1	8,83	0,41	9,24	94,31	94,80 ± 0,87
	0,315	89,74	1	8,97	0,41	9,39	95,80	

Tabel 20. Data uji pelepasan obat in vitro formula 3

Waktu (Jam)	Abs	Konsentrasi (µg/ml)	Faktor pengenceran	Jumlah yang terukur (mg) dalam 100 ml	Faktor koreksi (mg)	Total klindamisin yang terlepas (mg) per interval	%Pelepasan klindamisin	Rata-rata ± SD
	0,106	30,03	1	3,00	0	3	30,12	
0,25	0,111	31,46	1	3,15	0	3,15	31,56	31,37 ± 1,16
	0,114	32,31	1	3,23	0	3,23	32,42	
	0,141	40,03	1	4,00	0,03	4,03	40,46	
0,5	0,138	39,17	1	3,92	0,03	3,95	39,61	40,18 ± 0,49
	0,141	40,03	1	4,00	0,03	4,04	40,48	
	0,162	46,03	1	4,60	0,07	4,67	46,88	
1	0,167	47,46	1	4,75	0,07	4,82	48,32	48,13 ± 1,17
	0,170	48,31	1	4,83	0,07	4,90	49,20	
	0,248	70,60	1	7,06	0,12	7,18	71,99	
2	0,255	72,60	1	7,26	0,12	7,38	74,02	73,64 ± 1,49
	0,258	73,46	1	7,35	0,12	7,47	74,90	
	0,280	79,74	1	7,97	0,19	8,16	81,87	
3	0,287	81,74	1	8,17	0,19	8,36	83,92	83,25 ± 1,19
	0,287	81,74	1	8,17	0,19	8,37	83,95	
	0,327	93,17	1	9,32	0,27	9,58	96,14	
4	0,331	94,31	1	9,43	0,27	9,70	97,35	97,34 ± 1,19
	0,335	95,46	1	9,55	0,28	9,82	98,53	

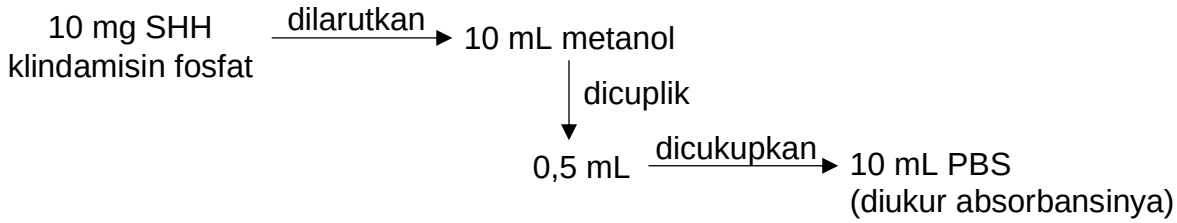
Lanjutan Tabel 20. Data uji pelepasan obat *in vitro* formula 3

Waktu (Jam)	Abs	Konsentrasi (µg/ml)	Faktor pengenceran	Jumlah yang terukur (mg) dalam 100 ml	Faktor koreksi (mg)	Total klindamisin yang terlepas (mg) per interval	%Pelepasan klindamisin	Rata-rata ± SD
	0,339	96,60	1	9,66	0,36	10,02	100,52	
5	0,339	96,60	1	9,66	0,37	10,03	100,59	100,58 ± 0,06
	0,339	96,60	1	9,66	0,37	10,03	100,64	
	0,348	99,17	1	9,92	0,46	10,37	104,07	
6	0,352	100,31	1	10,03	0,46	10,49	105,28	104,89 ± 0,72
	0,352	100,31	1	10,03	0,47	10,50	105,33	

Lampiran 7. Perhitungan

Lampiran 7.1 contoh perhitungan kandungan obat sediaan *self healing hydrogel* klindamisin fosfat pada formula 1 replikasi 1

Diketahui:



Absorbansi F1 replikasi 1 = 0,166

Faktor pengenceran (Fp) = 2

Konsentrasi klindamisin fosfat yang digunakan dalam formula 1 sebesar 1% (1 g/100 g berat *self healing hydrogel* klindamisin fosfat)

Jika dalam 10 mg *self healing hydrogel,* maka mengandung klindamisin fosfat sebesar 100 µg klindamisin fosfat

Sehingga secara teoritis 100 µg klindamisin fosfat/10 mg sediaan *self healing hydrogel* klindamisin fosfat

Persamaan kurva baku y = 0,0035x + 0,0009

Maka,

y = 0,0035x + 0,0009

0,166 = 0,0035x + 0,0009

0,0035x = 0,166 - 0,0009

$x = \frac{0,1651}{0,0035}$

x = 47,17 µg/ml

Kadar klindamisin fosfat dalam sediaan hasil analisis

$= \frac{x \,.\, fp \,.\, volume}{\text{berat sediaan yang ditimbang}} \times 100\%$

$= \frac{47,17\ \mu g/ml \,.\, 2 \,.\, 10\ ml}{10\ mg} \times 100\%$

= 94,34%

Lampiran 7.2 contoh perhitungan pelepasan obat sediaan *self healing hydrogel* klindamisin fosfat pada formula 1 replikasi 1

Diketahui:

Absorbansi F1 jam ke-1 replikasi 1 = 0,170
Faktor pengenceran (Fp) = 1
Persamaan kurva baku y = 0,0035x + 0,0009

Berat sediaan untuk uji pelepasan = 1 gram = 1000 mg

Secara teoritis 100 µg klindamisin fosfat/10 mg sediaan *self healing hydrogel* klindamisin fosfat

Sehingga,
kadar klindamisin fosfat dalam sediaan dianalisis rata-rata pada formula 1
= 95,30 µg klindamisin fosfat/10 mg sediaan
= 9,53 mg klindamisin fosfat/1000 mg sediaan

Maka,
y = 0,0035x + 0,0009
0,170 = 0,0035x + 0,0009
0,0035x = 0,170 - 0,0009
$x = \frac{0,1691}{0,0035}$
x = 48,31 µg/ml

Konsentrasi obat jam ke-1 dalam media pelepasan
= kadar terukur x jumlah media pelepasan x faktor pengenceran
= 48,31 µg/ml x 100 mL x 1
= 4,83 mg

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

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

$$\text{Faktor koreksi} = \frac{14,60\ \mu g + 25,46\ \mu g}{1000}$$

Faktor koreksi = 0,04 mg

Jumlah obat yang terlepas = konsentrasi obat dalam media pelepasan + faktor koreksi
Jumlah klindamisin fosfat yang terlepas = 3,29 mg + 0,04 mg = 3,33 mg

$$\%\text{pelepasan klindamisin fosfat} = \frac{\text{jumlah klindamisin yang terlepas}}{\text{berat klindamisin fosfat dalam sediaan analisis}} \times 100\%$$

$$\%\text{pelepasan klindamisin fosfat} = \frac{3,33\ mg}{9,53\ mg} \times 100\% = 34,94\%$$

Lampiran 8. Data hasil analisis statistika

Lampiran 8.1 uji pH sediaan *self healing hydrogel* sebelum penyimpanan

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
pH_sebelum_penyimpanan	F1	.343	3	.	.842	3	.220
	F2	.253	3	.	.964	3	.637
	F3	.253	3	.	.964	3	.637
	F4	.349	3	.	.832	3	.194

a. Lilliefors Significance Correction

ANOVA

pH_sebelum_penyimpanan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.149	3	.050	19.047	.001
Within Groups	.021	8	.003		
Total	.169	11			

Multiple Comparisons

Dependent Variable: pH_sebelum_penyimpanan

	(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Tukey HSD	F1	F2	-.02667	.04163	.916	-.1600	.1067
		F3	-.26333*	.04163	.001	-.3967	-.1300
		F4	-.19667*	.04163	.007	-.3300	-.0633
	F2	F1	.02667	.04163	.916	-.1067	.1600
		F3	-.23667*	.04163	.002	-.3700	-.1033
		F4	-.17000*	.04163	.015	-.3033	-.0367
	F3	F1	.26333*	.04163	.001	.1300	.3967
		F2	.23667*	.04163	.002	.1033	.3700
		F4	.06667	.04163	.429	-.0667	.2000
	F4	F1	.19667*	.04163	.007	.0633	.3300
		F2	.17000*	.04163	.015	.0367	.3033
		F3	-.06667	.04163	.429	-.2000	.0667
Games-Howell	F1	F2	-.02667	.05077	.948	-.2624	.2090
		F3	-.26333*	.02667	.013	-.4124	-.1143
		F4	-.19667*	.03801	.023	-.3526	-.0408
	F2	F1	.02667	.05077	.948	-.2090	.2624
		F3	-.23667	.04497	.074	-.5235	.0502
		F4	-.17000	.05249	.118	-.4027	.0627
	F3	F1	.26333*	.02667	.013	.1143	.4124
		F2	.23667	.04497	.074	-.0502	.5235
		F4	.06667	.02981	.324	-.1065	.2398
	F4	F1	.19667*	.03801	.023	.0408	.3526
		F2	.17000	.05249	.118	-.0627	.4027
		F3	-.06667	.02981	.324	-.2398	.1065

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

Lampiran 8.2 uji stabilitas pH sediaan *self healing hydrogel* pada suhu 25±3°C

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for hari_ke0	.203	12	.187	.882	12	.093
Standardized Residual for hari_ke7	.199	12	.200*	.908	12	.198
Standardized Residual for hari_ke14	.227	12	.087	.893	12	.129
Standardized Residual for hari_ke28	.299	12	.004	.702	12	.001

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

a. Lilliefors Significance Correction

Friedman Test

Test Statistics[a]

N	12
Chi-Square	36.000
df	3
Asymp. Sig.	.000

a. Friedman Test

Test Statistics[a]

	hari_ke7 - hari_ke0	hari_ke14 - hari_ke0	hari_ke28 - hari_ke0	hari_ke14 - hari_ke7	hari_ke28 - hari_ke7	hari_ke28 - hari_ke14
Z	-3.062[b]	-3.065[b]	-3.062[b]	-3.064[b]	-3.066[b]	-3.077[b]
Asymp. Sig. (2-tailed)	.002	.002	.002	.002	.002	.002

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Lampiran 8.3 uji stabilitas pH sediaan *self healing hydrogel* pada suhu 6±2°C

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for hari_ke0	.203	12	.187	.882	12	.093
Standardized Residual for hari_ke7	.229	12	.081	.896	12	.140
Standardized Residual for hari_ke14	.168	12	.200*	.923	12	.316
Standardized Residual for hari_ke28	.199	12	.200*	.902	12	.166

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

a. Lilliefors Significance Correction

Mauchly's Test of Sphericity[a]

Measure: pH_suhu_6

					Epsilon[b]		
Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Waktu	.749	2.810	5	.730	.849	1.000	.333

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept

Within Subjects Design: waktu

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: pH_suhu_6

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
waktu	Sphericity Assumed	.008	3	.003	1.663	.194
	Greenhouse-Geisser	.008	2.547	.003	1.663	.203
	Huynh-Feldt	.008	3.000	.003	1.663	.194
	Lower-bound	.008	1.000	.008	1.663	.224
Error(waktu)	Sphericity Assumed	.050	33	.002		
	Greenhouse-Geisser	.050	28.020	.002		
	Huynh-Feldt	.050	33.000	.002		

	Lower-bound	.050	11.000	.005		

Pairwise Comparisons

Measure: pH_suhu_6

(I) waktu	(J) waktu	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-.030	.020	.155	-.073	.013
	3	-.027	.015	.101	-.061	.006
	4	-.009	.014	.540	-.041	.023
2	1	.030	.020	.155	-.013	.073
	3	.003	.016	.880	-.033	.038
	4	.021	.014	.160	-.010	.051
3	1	.027	.015	.101	-.006	.061
	2	-.003	.016	.880	-.038	.033
	4	.018	.015	.251	-.015	.052
4	1	.009	.014	.540	-.023	.041
	2	-.021	.014	.160	-.051	.010
	3	-.018	.015	.251	-.052	.015

Based on estimated marginal means

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Lampiran 8.4 uji stabilitas pH sediaan *self healing hydrogel* pada suhu -20±2°C

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for hari_ke0	.203	12	.187	.882	12	.093
Standardized Residual for hari_ke7	.233	12	.070	.859	12	.048
Standardized Residual for hari_ke14	.223	12	.101	.855	12	.042
Standardized Residual for hari_ke28	.236	12	.063	.857	12	.045

a. Lilliefors Significance Correction

Friedman Test

Test Statistics[a]

N	12
Chi-Square	14.198
df	3
Asymp. Sig.	.003

a. Friedman Test

Test Statistics[a]

	hari_ke7 - hari_ke0	hari_ke14 - hari_ke0	hari_ke28 - hari_ke0	hari_ke14 - hari_ke7	hari_ke28 - hari_ke7	hari_ke28 - hari_ke14
Z	-2.256[b]	-.223[c]	-2.434[c]	-1.780[c]	-2.982[c]	-2.806[c]
Asymp. Sig. (2-tailed)	.024	.823	.015	.075	.003	.005

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

c. Based on positive ranks.

Lampiran 8.5 uji waktu *self healing hydrogel* sebelum penyimpanan

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
SH_sebelum_penyimpanan	F1	.267	3	.	.952	3	.578
	F2	.275	3	.	.943	3	.540
	F3	.200	3	.	.995	3	.862
	F4	.263	3	.	.955	3	.593

a. Lilliefors Significance Correction

ANOVA

SH_sebelum_penyimpanan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	97.580	3	32.527	306.279	.000
Within Groups	.850	8	.106		
Total	98.430	11			

Multiple Comparisons

Dependent Variable: SH_sebelum_penyimpanan

	(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Co Lower Boun
Tukey HSD	F1	F2	-3.28667*	.26608	.000	-4.13
		F3	-5.32000*	.26608	.000	-6.17
		F4	-7.78333*	.26608	.000	-8.63
	F2	F1	3.28667*	.26608	.000	2.43
		F3	-2.03333*	.26608	.000	-2.88
		F4	-4.49667*	.26608	.000	-5.34
	F3	F1	5.32000*	.26608	.000	4.46
		F2	2.03333*	.26608	.000	1.18
		F4	-2.46333*	.26608	.000	-3.31
	F4	F1	7.78333*	.26608	.000	6.93
		F2	4.49667*	.26608	.000	3.64
		F3	2.46333*	.26608	.000	1.61
Games-Howell	F1	F2	-3.28667*	.26055	.005	-4.61
		F3	-5.32000*	.25486	.001	-6.60
		F4	-7.78333*	.17733	.000	-8.53
	F2	F1	3.28667*	.26055	.005	1.95
		F3	-2.03333*	.33190	.012	-3.38
		F4	-4.49667*	.27685	.001	-5.76
	F3	F1	5.32000*	.25486	.001	4.03
		F2	2.03333*	.33190	.012	.68
		F4	-2.46333*	.27150	.006	-3.69
	F4	F1	7.78333*	.17733	.000	7.03
		F2	4.49667*	.27685	.001	3.23
		F3	2.46333*	.27150	.006	1.23

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

Lampiran 8.6 uji stabilitas waktu *self healing hydrogel* pada suhu 25±3°C

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for hari_ke0	.154	12	.200*	.913	12	.236
Standardized Residual for hari_ke7	.161	12	.200*	.908	12	.202
Standardized Residual for hari_ke14	.193	12	.200*	.903	12	.173
Standardized Residual for hari_ke28	.147	12	.200*	.922	12	.301

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

a. Lilliefors Significance Correction

Mauchly's Test of Sphericity[a]

Measure: SH_Suhu_25

					Epsilon[b]		
Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Greenhouse-Geisser	Huynh-Feldt	Lower-bound
waktu	.409	8.685	5	.124	.639	.771	.333

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept

Within Subjects Design: waktu

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: SH_Suhu_25

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
waktu	Sphericity Assumed	.647	3	.216	2.344	.091
	Greenhouse-Geisser	.647	1.917	.337	2.344	.122
	Huynh-Feldt	.647	2.312	.280	2.344	.110
	Lower-bound	.647	1.000	.647	2.344	.154
Error(waktu)	Sphericity Assumed	3.035	33	.092		
	Greenhouse-Geisser	3.035	21.085	.144		
	Huynh-Feldt	3.035	25.433	.119		

	Lower-bound	3.035	11.000	.276		

Pairwise Comparisons

Measure: SH_Suhu_25

(I) waktu	(J) waktu	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-.290	.136	.057	-.590	.010
	3	-.082	.126	.532	-.360	.197
	4	-.013	.072	.856	-.172	.145
2	1	.290	.136	.057	-.010	.590
	3	.208	.100	.062	-.013	.429
	4	.277	.153	.098	-.061	.614
3	1	.082	.126	.532	-.197	.360
	2	-.208	.100	.062	-.429	.013
	4	.068	.137	.627	-.232	.369
4	1	.013	.072	.856	-.145	.172
	2	-.277	.153	.098	-.614	.061
	3	-.068	.137	.627	-.369	.232

Based on estimated marginal means

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Lampiran 8.7 uji stabilitas waktu *self healing hydrogel* pada suhu 6±2°C

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for hari_ke0	.154	12	.200*	.913	12	.236
Standardized Residual for hari_ke7	.171	12	.200*	.914	12	.237
Standardized Residual for hari_ke14	.158	12	.200*	.921	12	.296
Standardized Residual for hari_ke28	.226	12	.093	.860	12	.049

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

a. Lilliefors Significance Correction

Friedman Test

Test Statistics[a]

N	12
Chi-Square	32.395
df	3
Asymp. Sig.	.000

a. Friedman Test

Test Statistics[a]

	hari_ke7 - hari_ke0	hari_ke14 - hari_ke0	hari_ke28 - hari_ke0	hari_ke14 - hari_ke7	hari_ke28 - hari_ke7	hari_ke28 - hari_ke14
Z	-2.511[b]	-3.061[b]	-3.059[b]	-2.758[b]	-3.059[b]	-3.059[b]
Asymp. Sig. (2-tailed)	.012	.002	.002	.006	.002	.002

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Lampiran 8.8 uji stabilitas waktu *self healing hydrogel* pada suhu -20±2°C

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for hari_ke0	.154	12	.200*	.913	12	.236
Standardized Residual for hari_ke7	.159	12	.200*	.913	12	.236
Standardized Residual for hari_ke14	.169	12	.200*	.910	12	.214
Standardized Residual for hari_ke28	.278	12	.011	.823	12	.017

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

a. Lilliefors Significance Correction

Friedman Test

Test Statistics[a]

N	12
Chi-Square	34.900
df	3
Asymp. Sig.	.000

a. Friedman Test

Test Statistics[a]

	hari_ke7 - hari_ke0	hari_ke14 - hari_ke0	hari_ke28 - hari_ke0	hari_ke14 - hari_ke7	hari_ke28 - hari_ke7	hari_ke28 - hari_ke14
Z	-3.059[b]	-3.061[b]	-3.059[b]	-2.824[b]	-3.061[b]	-3.061[b]
Asymp. Sig. (2-tailed)	.002	.002	.002	.005	.002	.002

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Lampiran 8.9 uji kandungan obat sediaan *self healing hydrogel* sebelum penyimpanan

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
DL_sebelum_penyimpanan	F1	.253	3	.	.964	3	.637
	F2	.204	3	.	.993	3	.843
	F3	.338	3	.	.852	3	.246

a. Lilliefors Significance Correction

ANOVA

DL_sebelum_penyimpanan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	29.243	2	14.621	.340	.725
Within Groups	257.959	6	42.993		
Total	287.202	8			

Multiple Comparisons

Dependent Variable: DL_sebelum_penyimpanan

			Mean Difference			95% Confidence Interval	
	(I) Formula	(J) Formula	(I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
Tukey HSD	F1	F2	-2.66667	5.35370	.875	-19.0933	13.7600
		F3	-4.38095	5.35370	.706	-20.8076	12.0457
	F2	F1	2.66667	5.35370	.875	-13.7600	19.0933
		F3	-1.71429	5.35370	.946	-18.1409	14.7123
	F3	F1	4.38095	5.35370	.706	-12.0457	20.8076
		F2	1.71429	5.35370	.946	-14.7123	18.1409
Games-Howell	F1	F2	-2.66667	1.26348	.247	-8.3022	2.9688
		F3	-4.38095	6.45374	.797	-41.9067	33.1448
	F2	F1	2.66667	1.26348	.247	-2.9688	8.3022
		F3	-1.71429	6.53752	.963	-37.8028	34.3742
	F3	F1	4.38095	6.45374	.797	-33.1448	41.9067
		F2	1.71429	6.53752	.963	-34.3742	37.8028

Lampiran 8.10 uji stabilitas kandungan obat sediaan *self healing hydrogel* pada suhu 25±3°C

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for hari_ke0	.180	9	.200*	.950	9	.685
Standardized Residual for hari_ke7	.188	9	.200*	.912	9	.329
Standardized Residual for hari_ke14	.159	9	.200*	.920	9	.393
Standardized Residual for hari_ke28	.120	9	.200*	.966	9	.855

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

a. Lilliefors Significance Correction

Mauchly's Test of Sphericity[a]

Measure: DL_suhu_25

					Epsilon[b]		
Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Greenhouse-Geisser	Huynh-Feldt	Lower-bound
waktu	.004	36.424	5	.000	.365	.379	.333

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept

Within Subjects Design: waktu

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: DL_suhu_25

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
waktu	Sphericity Assumed	297.315	3	99.105	8.332	.001
	Greenhouse-Geisser	297.315	1.095	271.545	8.332	.017
	Huynh-Feldt	297.315	1.137	261.390	8.332	.016
	Lower-bound	297.315	1.000	297.315	8.332	.020
Error(waktu)	Sphericity Assumed	285.460	24	11.894		
	Greenhouse-Geisser	285.460	8.759	32.590		
	Huynh-Feldt	285.460	9.100	31.371		
	Lower-bound	285.460	8.000	35.683		

Pairwise Comparisons

Measure: DL_suhu_25

(I) waktu	(J) waktu	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
1	2	-1.968	2.300	.417	-7.272	3.335
	3	1.524	2.294	.525	-3.765	6.813
	4	5.841*	2.175	.028	.825	10.858
2	1	1.968	2.300	.417	-3.335	7.272
	3	3.492*	.242	.000	2.935	4.050
	4	7.810*	.436	.000	6.803	8.816
3	1	-1.524	2.294	.525	-6.813	3.765
	2	-3.492*	.242	.000	-4.050	-2.935
	4	4.317*	.572	.000	2.998	5.637
4	1	-5.841*	2.175	.028	-10.858	-.825
	2	-7.810*	.436	.000	-8.816	-6.803
	3	-4.317*	.572	.000	-5.637	-2.998

Based on estimated marginal means

*. The mean difference is significant at the ,05 level.

b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Lampiran 8.11 uji stabilitas kandungan obat sediaan *self healing hydrogel* pada suhu 6±2°C

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for hari_ke0	.180	9	.200*	.950	9	.685
Standardized Residual for hari_ke7	.162	9	.200*	.932	9	.503
Standardized Residual for hari_ke14	.243	9	.133	.875	9	.139
Standardized Residual for hari_ke28	.232	9	.176	.850	9	.075

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

a. Lilliefors Significance Correction

Mauchly's Test of Sphericity[a]

Measure: DL_suhu_6

					Epsilon[b]		
Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Greenhouse-Geisser	Huynh-Feldt	Lower-bound
waktu	.036	22.388	5	.001	.411	.448	.333

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept

Within Subjects Design: waktu

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: DL_suhu_6

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
waktu	Sphericity Assumed	69.261	3	23.087	1.448	.254
	Greenhouse-Geisser	69.261	1.233	56.180	1.448	.266
	Huynh-Feldt	69.261	1.344	51.531	1.448	.267
	Lower-bound	69.261	1.000	69.261	1.448	.263
Error(waktu)	Sphericity Assumed	382.658	24	15.944		
	Greenhouse-Geisser	382.658	9.863	38.799		
	Huynh-Feldt	382.658	10.752	35.588		
	Lower-bound	382.658	8.000	47.832		

Pairwise Comparisons

Measure: DL_suhu_6

(I) waktu	(J) waktu	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
1	2	-.698	2.707	.803	-6.940	5.543
	3	-2.603	2.486	.326	-8.335	3.128
	4	-3.429	2.450	.199	-9.079	2.222
2	1	.698	2.707	.803	-5.543	6.940
	3	-1.905	.933	.076	-4.057	.247
	4	-2.730*	.824	.011	-4.629	-.831
3	1	2.603	2.486	.326	-3.128	8.335
	2	1.905	.933	.076	-.247	4.057
	4	-.825	.448	.103	-1.858	.207
4	1	3.429	2.450	.199	-2.222	9.079
	2	2.730*	.824	.011	.831	4.629
	3	.825	.448	.103	-.207	1.858

Based on estimated marginal means

*. The mean difference is significant at the ,05 level.

b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Lampiran 8.12 uji stabilitas kandungan obat sediaan *self healing hydrogel* pada suhu -20±2°C

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Standardized Residual for hari_ke0	.180	9	.200*	.950	9	.685
Standardized Residual for hari_ke7	.179	9	.200*	.913	9	.337
Standardized Residual for hari_ke14	.224	9	.200*	.872	9	.129
Standardized Residual for hari_ke28	.183	9	.200*	.901	9	.260

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

a. Lilliefors Significance Correction

Mauchly's Test of Sphericity[a]

Measure: DL_suhu_minus20

					Epsilon[b]		
Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Greenhouse-Geisser	Huynh-Feldt	Lower-bound
waktu	.067	18.170	5	.003	.583	.733	.333

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept

Within Subjects Design: waktu

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: DL_suhu_minus20

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
waktu	Sphericity Assumed	440.961	3	146.987	7.778	.001
	Greenhouse-Geisser	440.961	1.750	251.960	7.778	.007
	Huynh-Feldt	440.961	2.200	200.417	7.778	.003
	Lower-bound	440.961	1.000	440.961	7.778	.024
Error(waktu)	Sphericity Assumed	453.569	24	18.899		
	Greenhouse-Geisser	453.569	14.001	32.395		
	Huynh-Feldt	453.569	17.602	25.768		
	Lower-bound	453.569	8.000	56.696		

Pairwise Comparisons

Measure: DL_suhu_minus20

(I) waktu	(J) waktu	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
1	2	-.698	2.794	.809	-7.142	5.745
	3	-.952	1.733	.598	-4.948	3.043
	4	7.492*	2.671	.023	1.333	13.651
2	1	.698	2.794	.809	-5.745	7.142
	3	-.254	1.220	.840	-3.067	2.559
	4	8.190*	1.893	.003	3.826	12.555
3	1	.952	1.733	.598	-3.043	4.948
	2	.254	1.220	.840	-2.559	3.067
	4	8.444*	1.478	.000	5.037	11.852
4	1	-7.492*	2.671	.023	-13.651	-1.333
	2	-8.190*	1.893	.003	-12.555	-3.826
	3	-8.444*	1.478	.000	-11.852	-5.037

Based on estimated marginal means

*. The mean difference is significant at the ,05 level.

b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Lampiran 8.13 uji pelepasan obat secara *in vitro*

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
Pelepasan_klindamisin	F1	.380	3	.	.762	3	.028
	F2	.383	3	.	.756	3	.013
	F3	.380	3	.	.763	3	.029

a. Lilliefors Significance Correction

Friedman Test

Test Statistics[a]

N	9
Chi-Square	9.000
df	1
Asymp. Sig.	.003

a. Friedman Test

Pairwise Comparisons of Formula

Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.[a]
F1-F2	-3.000	2.236	-1.342	.180	.539
F1-F3	-6.000	2.236	-2.683	.007	.022
F2-F3	-3.000	2.236	-1.342	.180	.539

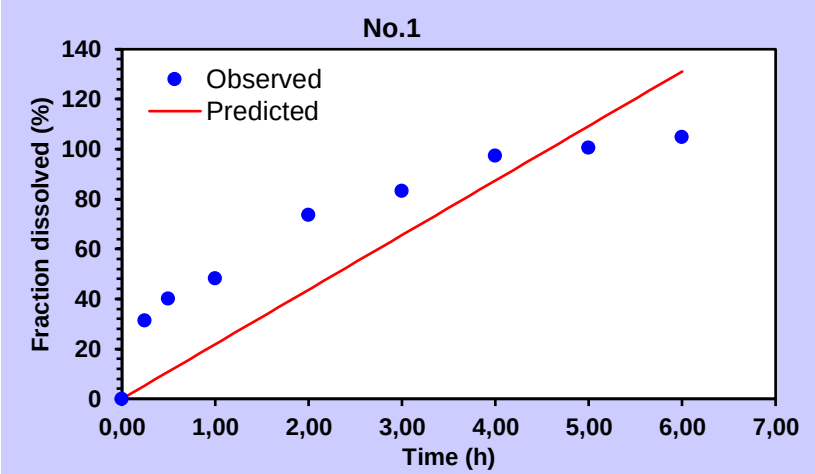
Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.

Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

a. Significance values have been adjusted by the Bonferroni correction for multiple tests.

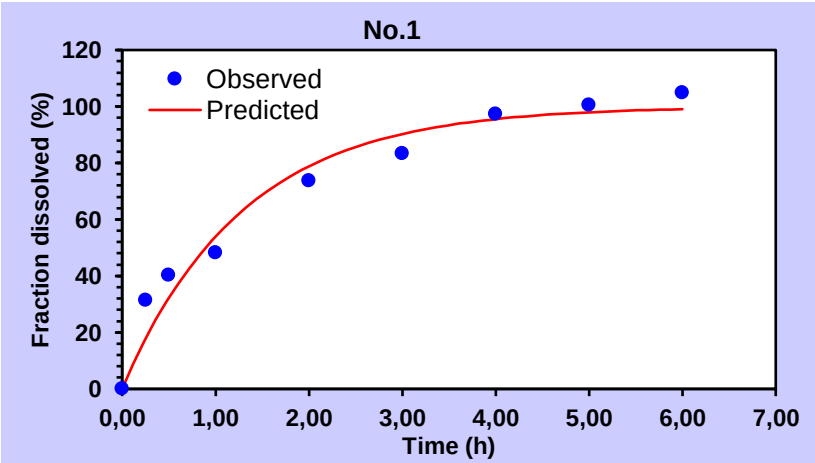
Lampiran 9. Kinetika pelepasan sediaan *self healing hydrogel* klindamisin fosfat formula 3

Goodness of Fit	
Parameter	**No.1**
N_observed	9
DF	8
R_obs-pre	0,9292
Rsqr	0,5941
Rsqr_adj	0,5941
MSE	536,0030
MSE_root	23,1517
Weighting	1
SS	4288,0237
WSS	4288,0237
AIC	77,2722
MSC	0,1813



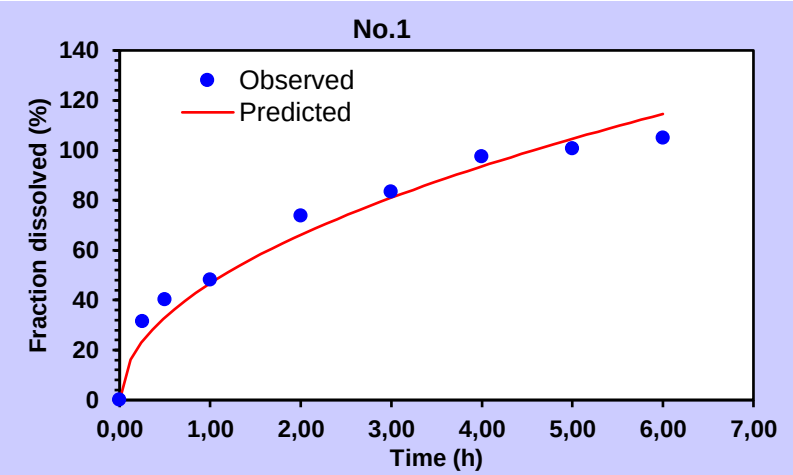
Gambar 13. Hasil analisis kinetika orde nol sediaan *self healing hydrogel* klindamisin fosfat F3

Goodness of Fit	
Parameter	**No.1**
N_observed	9
DF	8
R_obs-pre	0,9837
Rsqr	0,9614
Rsqr_adj	0,9614
MSE	50,9507
MSE_root	7,1380
Weighting	1
SS	407,6054
WSS	407,6054
AIC	56,0927
MSC	2,5346



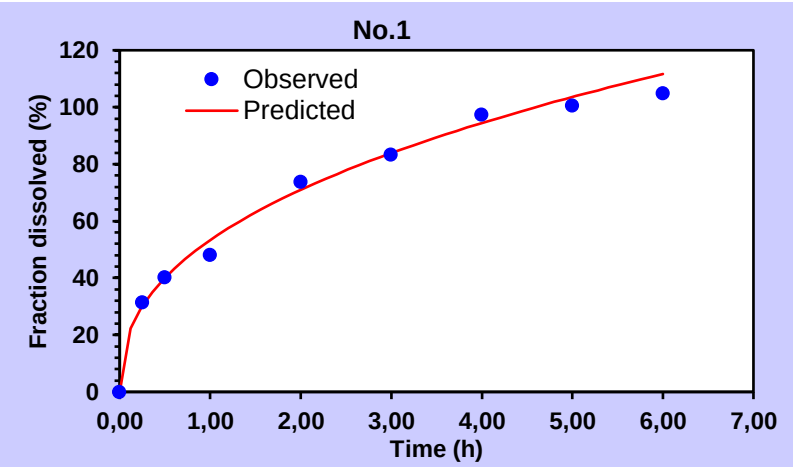
Gambar 14. Hasil analisis kinetika orde pertama sediaan *self healing hydrogel* klindamisin fosfat F3

Goodness of Fit	
Parameter	**No.1**
N_observed	9
DF	8
R_obs-pre	0,9912
Rsqr	0,9715
Rsqr_adj	0,9715
MSE	37,6598
MSE_root	6,1368
Weighting	1
SS	301,2782
WSS	301,2782
AIC	53,3723
MSC	2,8369



Gambar 15. Hasil analisis kinetika Higuchi sediaan *self healing hydrogel* klindamisin fosfat F3

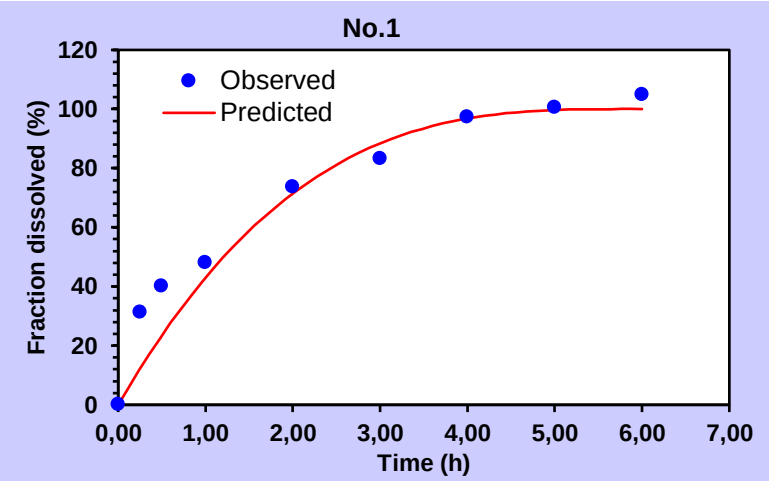
Goodness of Fit	
Parameter	**No.1**
N_observed	9
DF	7
R_obs-pre	0,9962
Rsqr	0,9906
Rsqr_adj	0,9893
MSE	14,1519
MSE_root	3,7619
Weighting	1
SS	99,0634
WSS	99,0634
AIC	45,3618
MSC	3,7269



Best-fit Values		
Parameter	**No.1**	**Mean**
kKP	53,333	53,333
n	0,412	0,412

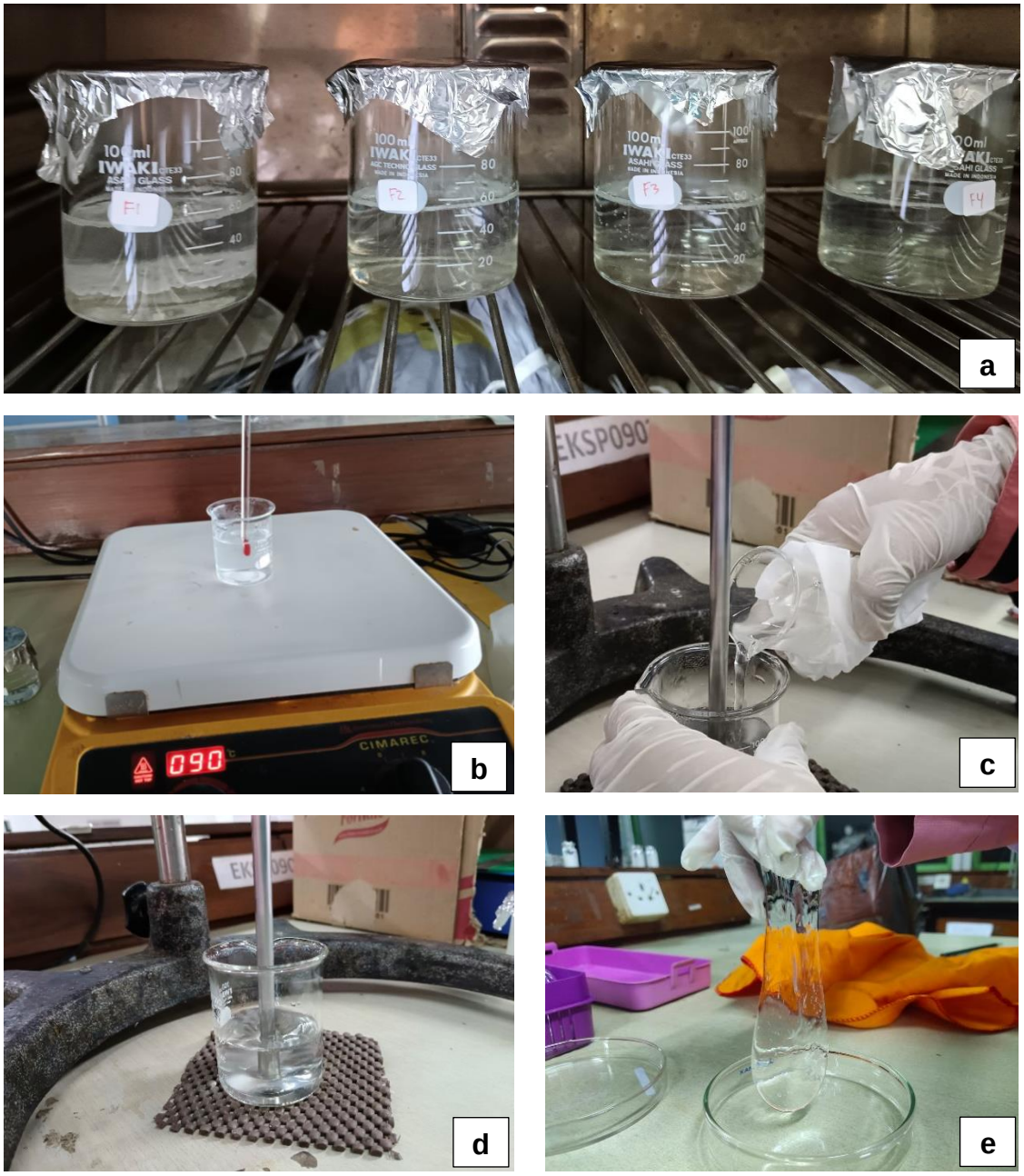
Gambar 16. Hasil analisis kinetika Korsmeyer-Peppas sediaan *self healing hydrogel* klindamisin fosfat F3

Goodness of Fit	
Parameter	**No.1**
N_observed	9
DF	8
R_obs-pre	0,9835
Rsqr	0,9312
Rsqr_adj	0,9312
MSE	90,8449
MSE_root	9,5313
Weighting	1
SS	726,7591
WSS	726,7591
AIC	61,2974
MSC	1,9563



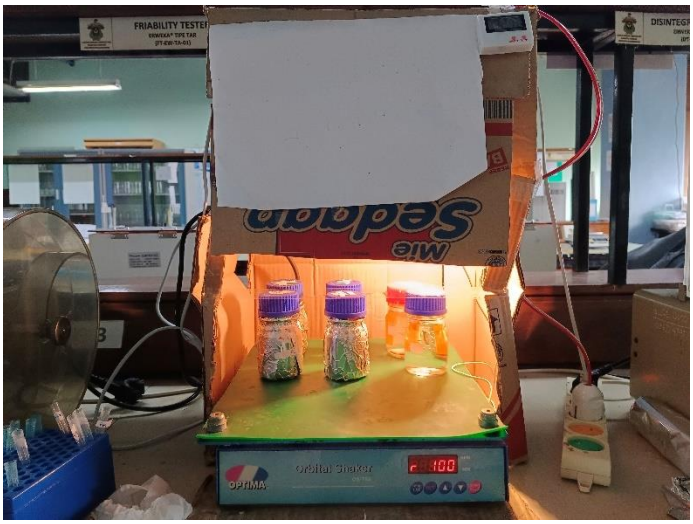
Gambar 17. Hasil analisis kinetika Hixson-Crowell sediaan *self healing hydrogel* klindamisin fosfat F3

Lampiran 10. Dokumentasi



Gambar 18. Formulasi sediaan *self healing hydrogel* klindamisin fosfat (a) PVA dilarutkan di dalam oven pada suhu 90°C (b) boraks dilarutkan pada suhu 90°C (c) larutan boraks ditambahkan ke dalam larutan pva dan klindamisin (d) diaduk dengan bantuan alat homogenizer (e) *self healing hydrogel* yang telah terbentuk dipindahkan ke dalam wadah

Gambar 19. Uji pH



Gambar 20. Uji pelepasan secara *in vitro*

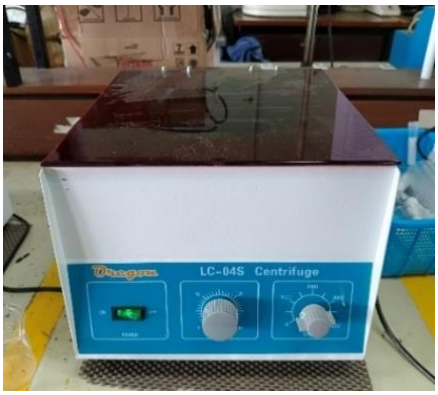
Gambar 21. Uji waktu *self healing hydrogel*

Gambar 22. Alat oven

Gambar 23. Alat *magnetic stirrer*

Gambar 24. Alat *homogenizer*

Gambar 25. Alat *vortex mixer*



Gambar 26. Alat sentrifus

Gambar 27. Alat spektrofotometer UV-Vis