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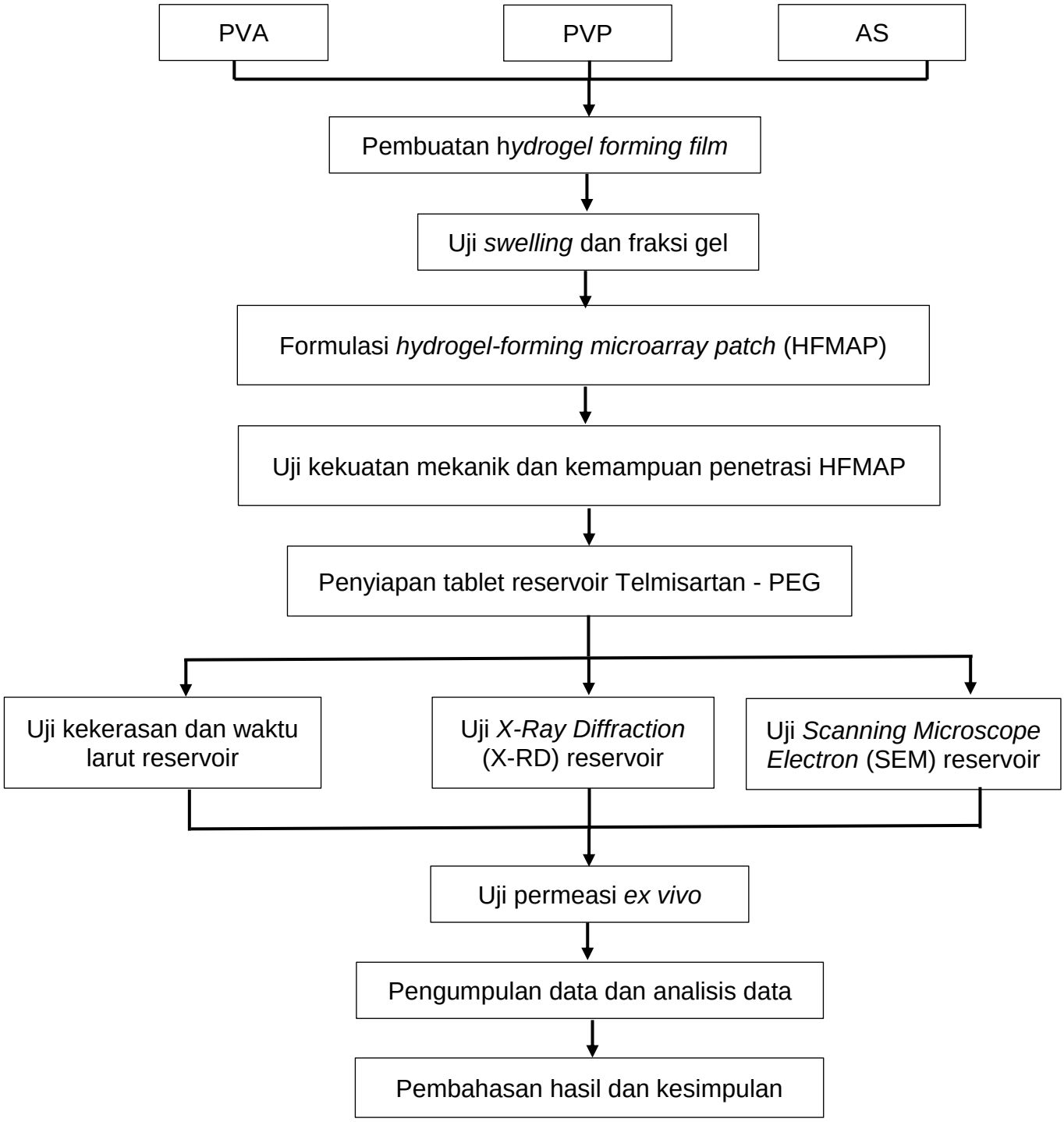
LAMPIRAN

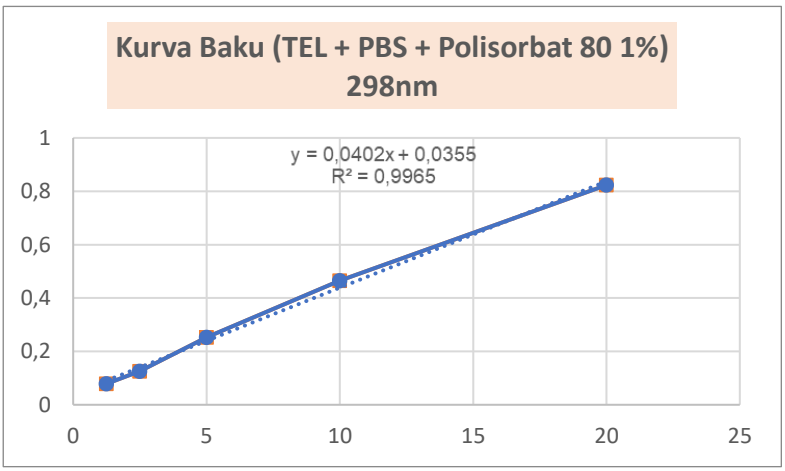
Lampiran 1. Prosedur penelitian



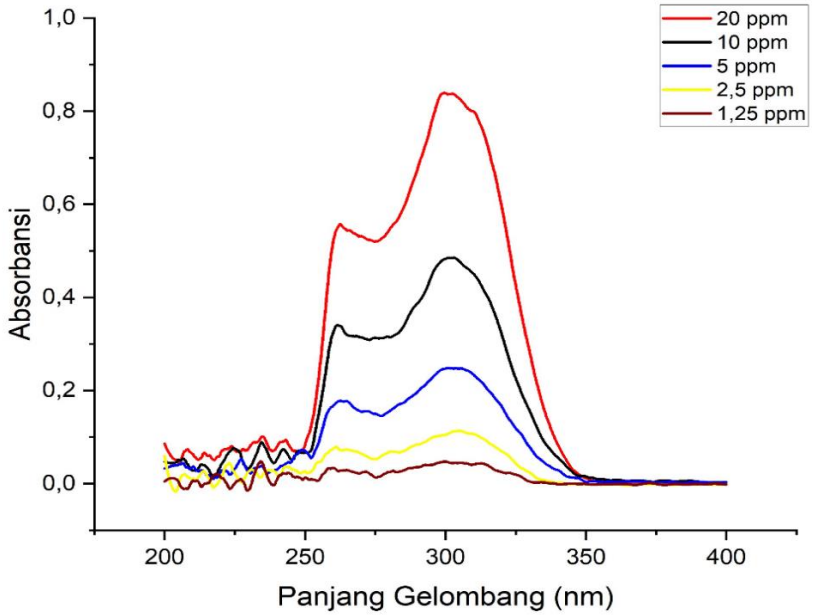
Lampiran 2. Persamaan Kurva Baku Telmisartan dalam PBS + Polisorbat 80 1%

Tabel 9. Persamaan Kurva Baku Telmisartan dalam PBS + Polisorbat 80 1%

Konsentrasi Pengenceran	Absorbansi
20	0,823333
10	0,464667
5	0,253
2,5	0,126333
1,25	0,078667



Gambar 21. Kurva baku telmisartan dalam PBS + Polisorbat 80 1%



Gambar 22. Panjang Gelombang maksimum telmisartan dalam PBS + Polisorbat 80 1%

Lampiran 3. Data Uji *Swelling* HFMAP

Tabel 10. Uji Swelling *Hydrogel Forming Film*

Waktu	F1 40'	F1 80'	F1 120'	F2 40'	F2 80'	F2 120'	F3 40'	F3 80'	F3 120'	F4 40'	F4 80'	F4 120'	F5 40'	F5 80'	F5 120'	F6 40'	F6 80'	F6 120'
(Jam)	% kenaikan bobot																	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0,25	63,154	56,231	78,981	55,652	57,538	52,494	52,326	41,445	51,145	82,356	52,627	55,255	71,216	72,122	62,182	64,684	61,381	51,898
0,5	106,684	88,385	151,640	90,072	94,292	83,284	83,344	65,542	77,275	162,956	82,776	92,024	124,329	125,325	131,005	119,331	106,007	86,799
1	184,195	l53,267	237,337	156,429	178,870	143,913	147,301	103,241	125,386	254,365	139,642	160,035	209,252	196,046	289,434	201,983	186,791	147,893
2	275,173	248,064	319,834	250,209	275,786	236,520	231,079	174,655	204,465	332,333	230,239	248,028	305,540	287,437	354,215	290,789	271,493	231,348
3	311,525	288,657	338,206	288,547	308,936	276,425	283,623	230,313	259,845	364,573	283,463	293,867	333,524	321,321	356,005	331,516	313,246	279,937
4	335,792	316,425	351,640	317,972	332,315	311,194	315,385	267,189	295,821	423,326	318,925	320,847	360,023	356,206	379,042	351,260	334,963	309,613
5	348,107	335,239	359,581	328,947	344,105	327,375	338,989	296,467	325,930	481,293	338,985	336,078	374,300	372,322	383,372	367,451	350,000	330,582
6	349,259	336,449	358,119	334,539	346,843	334,353	354,715	317,030	336,348	530,577	352,925	343,248	374,129	378,779	386,432	371,789	357,015	344,131
7	355,285	344,888	358,949	342,434	349,034	345,814	366,842	331,642	351,345	533,903	365,731	350,158	379,783	386,637	387,702	378,026	364,030	355,312
8	364,537	353,327	361,280	349,880	349,755	348,990	374,163	344,182	359,388	539,446	375,910	356,263	381,725	390,741	391,513	382,776	371,791	362,452
24	356,338	359,921	358,277	345,724	347,189	349,911	388,089	378,268	385,031	541,940	391,224	360,035	378,184	399,249	389,607	391,615	411,978	382,724

Tabel 11. Bobot *Hydrogel Forming* Film saat direndam dalam media PBS pH 7,4

Waktu	F1 40'	F1 80'	F1 120'	F2 40'	F2 80'	F2 120'	F3 40'	F3 80'	F3 120'	F4 40'	F4 80'	F4 120'	F5 40'	F5 80'	F5 120'	F6 40'	F6 80'	F6 120'
(Jam)	Bobot *Hydrogel Forming Film*																	
Awal	0,304	0,331	0,253	0,334	0,347	0,337	0,322	0,376	0,349	0,217	0,335	0,347	0,175	0,200	0,173	0,242	0,268	0,287
0,25	0,496	0,517	0,453	0,521	0,547	0,514	0,491	0,532	0,528	0,395	0,511	0,539	0,300	0,344	0,281	0,399	0,433	0,436
0,5	0,628	0,623	0,637	0,636	0,674	0,617	0,591	0,623	0,619	0,569	0,612	0,667	0,393	0,450	0,400	0,531	0,552	0,536
1	0,863	0,837	0,854	0,858	0,967	0,822	0,797	0,765	0,788	0,767	0,803	0,903	0,542	0,592	0,675	0,731	0,769	0,712
2	1,139	1,151	1,063	1,171	1,304	1,133	1,067	1,034	1,064	0,936	1,106	1,209	0,710	0,774	0,787	0,946	0,996	0,951
3	1,250	1,285	1,109	1,299	1,419	1,268	1,237	1,243	1,257	1,006	1,285	1,368	0,759	0,842	0,790	1,045	1,108	1,091
4	1,324	1,377	1,143	1,398	1,500	1,385	1,339	1,382	1,383	1,133	1,403	1,462	0,806	0,912	0,830	1,093	1,166	1,176
5	1,361	1,439	1,163	1,434	1,541	1,439	1,415	1,492	1,488	1,259	1,471	1,515	0,831	0,944	0,837	1,132	1,206	1,236
6	1,364	1,443	1,160	1,453	1,550	1,463	1,466	1,570	1,525	1,365	1,517	1,539	0,830	0,957	0,843	1,142	1,225	1,275
7	1,383	1,471	1,162	1,480	1,558	1,502	1,505	1,625	1,577	1,372	1,560	1,563	0,840	0,972	0,845	1,157	1,244	1,307
8	1,411	1,499	1,168	1,504	1,560	1,512	1,529	1,672	1,605	1,384	1,594	1,585	0,844	0,981	0,851	1,169	1,264	1,328
24	1,386	1,521	1,160	1,491	1,551	1,515	1,574	1,800	1,695	1,390	1,646	1,598	0,837	0,998	0,848	1,190	1,372	1,386

Contoh Perhitungan Swelling *Hydrogel* Film

Adapun rumus meghitung persentase *swelling* yaitu :

$$\textit{Swelling}\ (\%) = \frac{mt-mo}{mo} \times 100\%$$

m_t adalah massa *hydrogel* film pada interval waktu penimbangan

m_o adalah massa awal *hydrogel* film.

Misalnya diketahui bobot awal *hydrogel* film F1 40 sebelum direndam pada media PBS pH 7,4 yaitu 0,304 g dan setelah 15 menit perendaman, bobot *hydrogel* film mengalami kenaikan sebesar 0,496 g

Maka, persentasi swelling *hydrogel* film F1 40 setelah 15 menit yaitu :

$$\textit{Swelling}\ (\%) = \frac{mt-mo}{mo} \times 100\%$$

$$= \frac{0{,}496 - 0{,}304}{0{,}304} \times 100\%$$

$$= 63{,}154\ \%$$

Lampiran 4. Data Uji Fraksi Gel HFMAP

Tabel 12. Uji Fraksi gel HFMAP

Formula	Waktu Crosslink	M_o	M_d	%FG	% Rata-rata FG
F1 (PVP 15% + PVA 15% + Asam Sitrat 1,5%)	40 Menit	0,72	0,17	23,45	23,86
		0,71	0,17	23,87	
		0,70	0,17	24,25	
	80 Menit	1,15	0,28	24,48	24,78
		1,13	0,28	24,77	
		1,12	0,28	25,08	
	120 Menit	1,41	0,36	25,31	25,56
		1,39	0,36	25,57	
		1,38	0,36	25,80	
F2 (PVP 15% + PVA 15% + Asam Sitrat 2,5%)	40 Menit	1,29	0,31	24,07	24,28
		1,28	0,31	24,29	
		1,27	0,31	24,47	
	80 Menit	0,96	0,23	24,24	24,54
		0,95	0,23	24,55	
		0,95	0,23	24,81	
	120 Menit	1,10	0,27	24,09	24,39
		1,09	0,27	24,42	
		1,08	0,27	24,65	
F3 (PVP 12% + PVA 12% + Asam Sitrat 1,5%)	40 Menit	1,61	0,39	24,24	24,36
		1,60	0,39	24,35	
		1,59	0,39	24,48	
	80 Menit	1,50	0,38	25,15	25,27
		1,49	0,38	25,28	
		1,48	0,38	25,39	
	120 Menit	1,31	0,31	24,04	24,29
		1,29	0,31	24,31	
		1,29	0,32	24,52	
F4 (PVP 12% + PVA 12% + Asam Sitrat 2,5%)	40 Menit	1,74	0,46	26,56	26,57
		1,73	0,46	26,55	
		1,72	0,46	26,60	
	80 Menit	1,13	0,26	22,78	23,05
		1,12	0,26	23,07	

		1,11	0,26	23,30	
	120 Menit	2,04	0,61	30,10	30,17
		2,02	0,61	30,16	
		2,01	0,61	30,25	
F5 (PVP 10% + PVA 10% + Asam Sitrat 1,5%)	**40 Menit**	0,96	0,22	22,81	23,12
		0,95	0,22	23,14	
		0,94	0,22	23,40	
	80 Menit	0,92	0,21	22,85	23,12
		0,91	0,21	23,16	
		0,90	0,21	23,36	
	120 Menit	1,06	0,24	22,27	22,52
		1,04	0,24	22,58	
		1,04	0,24	22,73	
F6 (PVP 10% + PVA 10% + Asam Sitrat 2,5%)	**40 Menit**	1,47	0,35	24,16	24,24
		1,46	0,35	24,21	
		1,45	0,35	24,34	
	80 Menit	1,01	0,22	21,97	22,21
		1,00	0,22	22,23	
		0,99	0,22	22,42	
	120 Menit	1,52	0,45	29,61	29,61
		1,51	0,45	29,59	
		1,51	0,45	29,65	

Lampiran 5. Data Uji permeasi *ex vivo* F6 80’ HFMAP kombinasi Reservoir Telmisartan - PEG

Tabel 13. Uji permeasi *ex vivo* HFMAP F6 80’- F1R

Jam ke-	Serapan	Konsentrasi (µg/ml)	Faktor Pengenceran	Konsentrasi dalam 13ml (µg)	Faktor Koreksi	Jumlah Terpermeasi		Rata-rata	SD
						µg	mg		
0,25	0,092	1,405	1	18,271	0,000	18,271	0,018	18,487	0,187
	0,093	1,430	1	18,595	0,000	18,595	0,019		
	0,093	1,430	1	18,595	0,000	18,595	0,019		
0,5	0,142	2,649	1	34,440	1,405	35,846	0,036	37,264	1,67
	0,145	2,724	1	35,410	1,430	36,841	0,037		
	0,152	2,898	1	37,674	1,430	39,104	0,039		
0,75	0,222	4,639	1	60,311	4,055	64,366	0,064	65,137	0,673
	0,225	4,714	1	61,281	4,154	65,435	0,065		
	0,225	4,714	1	61,281	4,328	65,609	0,066		
1	0,346	7,724	1	100,410	8,694	109,104	0,109	110,464	1,48
	0,349	7,799	1	101,381	8,868	110,249	0,110		
	0,354	7,923	1	102,998	9,042	112,040	0,112		
2	0,414	9,415	3	367,201	16,418	383,619	0,384	381,621	2,859
	0,413	9,391	3	366,231	16,667	382,898	0,383		
	0,408	9,266	3	361,381	16,965	378,346	0,378		
3	0,422	9,614	3	374,963	25,833	400,796	0,401	405,207	5,17
	0,425	9,689	3	377,873	26,057	403,930	0,404		
	0,432	9,863	3	384,664	26,231	410,896	0,411		
4	0,502	11,604	3	452,575	35,448	488,022	0,488	492,865	5,834
	0,505	11,679	3	455,485	35,746	491,231	0,491		

	0,513	11,878	3	463,246	36,095	499,341	0,499		
	0,628	14,739	3	574,813	47,052	621,866	0,622		
5	0,633	14,863	3	579,664	47,425	627,090	0,627	627,471	5,805
	0,639	15,012	3	585,485	47,973	633,458	0,633		
	0,711	16,803	3	655,336	61,791	717,127	0,717		
6	0,707	16,704	3	651,455	62,289	713,744	0,714	713,487	3,775
	0,702	16,580	3	646,604	62,985	709,590	0,710		
	0,727	17,201	3	670,858	78,595	749,453	0,749		
7	0,722	17,077	3	666,007	78,993	745,000	0,745	750,556	6,181
	0,734	17,376	3	677,649	79,565	757,214	0,757		
	0,809	19,241	3	750,410	95,796	846,206	0,846		
8	0,812	19,316	3	753,321	96,070	849,391	0,849	852,500	8,297
	0,824	19,614	3	764,963	96,940	861,903	0,862		
	0,908	21,704	3	846,455	115,037	961,493	0,961		
24	0,898	21,455	3	836,754	115,386	952,139	0,952	956,617	4,69
	0,901	21,530	3	839,664	116,555	956,219	0,956		

Tabel 14. Uji permeasi *ex vivo* HFMAP F6 80' - F2R

Jam ke-	Serapan	Konsentrasi (µg/ml)	Faktor Pengenceran	Konsentrasi dalam 13ml (µg)	Faktor Koreksi	Jumlah Terpermeasi		Rata-rata	SD
						µg	mg		
0,25	0,095	1,480	1	19,241	0,000	19,241	0,019	19,564	0,56
	0,095	1,480	1	19,241	0,000	19,241	0,019		
	0,098	1,555	1	20,211	0,000	20,211	0,020		
0,5	0,146	2,749	1	35,734	1,480	37,214	0,037	39,179	2,161
	0,151	2,873	1	37,351	1,480	38,831	0,039		
	0,159	3,072	1	39,938	1,555	41,493	0,041		
0,75	0,241	5,112	1	66,455	4,229	70,684	0,071	71,721	1,009
	0,244	5,187	1	67,425	4,353	71,779	0,072		
	0,246	5,236	1	68,072	4,627	72,699	0,073		
1	0,376	8,470	1	110,112	9,341	119,453	0,119	122,927	3,495
	0,386	8,719	1	113,346	9,540	122,886	0,123		
	0,396	8,968	1	116,580	9,863	126,443	0,126		
2	0,425	9,689	1	125,958	17,811	143,769	0,144	144,581	1,044
	0,425	9,689	1	125,958	18,259	144,216	0,144		
	0,428	9,764	1	126,928	18,831	145,759	0,146		

3	0,48	11,057	3	431,231	27,500	458,731	0,459	461,832	2,705
	0,484	11,157	3	435,112	27,948	463,060	0,463		
	0,484	11,157	3	435,112	28,595	463,706	0,464		
4	0,522	12,102	3	471,978	38,557	510,535	0,511	517,259	6,089
	0,53	12,301	3	479,739	39,104	518,843	0,519		
	0,533	12,376	3	482,649	39,751	522,400	0,522		
5	0,645	15,162	3	591,306	50,659	641,965	0,642	648,201	7,177
	0,649	15,261	3	595,187	51,405	646,592	0,647		
	0,658	15,485	3	603,918	52,127	656,045	0,656		
6	0,727	17,201	3	670,858	65,821	736,679	0,737	738,205	6,431
	0,722	17,077	3	666,007	66,667	732,674	0,733		
	0,734	17,376	3	677,649	67,612	745,261	0,745		
7	0,764	18,122	3	706,754	83,022	789,776	0,790	793,259	5,419
	0,764	18,122	3	706,754	83,744	790,498	0,790		
	0,772	18,321	3	714,515	84,988	799,502	0,800		
8	0,824	19,614	3	764,963	101,144	866,107	0,866	858,984	7,164
	0,816	19,415	3	757,201	101,866	859,067	0,859		
	0,807	19,192	3	748,470	103,308	851,779	0,852		
24	0,917	21,928	3	855,187	120,759	975,945	0,976	984,461	7,400
	0,929	22,226	3	866,828	121,281	988,109	0,988		

	0,929	22,226	3	866,828	122,500	989,328	0,989	

Tabel 15. Uji permeasi *ex vivo* HFMAP F6 80'- F3R

Jam ke-	Serapan	Konsentrasi (µg/ml)	Faktor Pengenceran	Konsentrasi dalam 13ml (µg)	Faktor Koreksi	Jumlah Terpermeasi		Rata-rata	SD
						µg	mg		
0,25	0,097	1,530	1	19,888	0,000	19,888	0,020	21,182	1,294
	0,101	1,629	1	21,182	0,000	21,182	0,021		
	0,105	1,729	1	22,475	0,000	22,475	0,022		
0,5	0,158	3,047	1	39,614	1,530	41,144	0,041	42,537	1,393
	0,162	3,147	1	40,908	1,629	42,537	0,043		
	0,166	3,246	1	42,201	1,729	43,930	0,044		
0,75	0,292	6,381	1	82,948	4,577	87,525	0,088	89,341	1,678
	0,298	6,530	1	84,888	4,776	89,664	0,090		
	0,301	6,604	1	85,858	4,975	90,833	0,091		
1	0,394	8,918	1	115,933	10,958	126,891	0,127	121,609	5,045
	0,375	8,445	1	109,789	11,306	121,095	0,121		
	0,361	8,097	1	105,261	11,580	116,841	0,117		
2	0,428	9,764	1	126,928	19,876	146,803	0,147	147,558	0,655
	0,432	9,863	1	128,221	19,751	147,973	0,148		
	0,432	9,863	1	128,221	19,677	147,898	0,148		

3	0,497	11,480	3	447,724	29,639	477,363	0,477	483,466	5,472
	0,505	11,679	3	455,485	29,614	485,100	0,485		
	0,508	11,754	3	458,396	29,540	487,935	0,488		
4	0,547	12,724	3	496,231	41,119	537,351	0,537	542,318	4,938
	0,552	12,848	3	501,082	41,294	542,376	0,542		
	0,557	12,973	3	505,933	41,294	547,226	0,547		
5	0,684	16,132	3	629,142	53,843	682,985	0,683	676,758	6,099
	0,677	15,958	3	622,351	54,142	676,493	0,676		
	0,671	15,808	3	616,530	54,266	670,796	0,671		
6	0,757	17,948	3	699,963	69,975	769,938	0,770	774,540	3,985
	0,764	18,122	3	706,754	70,100	776,853	0,777		
	0,764	18,122	3	706,754	70,075	776,828	0,777		
7	0,799	18,993	3	740,709	87,923	828,632	0,829	828,499	6,295
	0,792	18,818	3	733,918	88,221	822,139	0,822		
	0,805	19,142	3	746,530	88,197	834,726	0,835		
8	0,849	20,236	3	789,216	106,915	896,132	0,896	902,782	9,018
	0,852	20,311	3	792,127	107,040	899,167	0,899		
	0,866	20,659	3	805,709	107,338	913,047	0,913		
24	0,933	22,326	3	870,709	127,152	997,861	0,998	1014,378	16,431
	0,95	22,749	3	887,201	127,351	1014,552	1,015		

	0,966	23,147	3	902,724	127,998	1030,721	1,031	

Contoh Perhitungan Jumlah Obat Yang Terpermeasi

Diketahui untuk F1R jam ke-24 replikasi pertama diperoleh nilai serapan 0,908 dengan faktor pengenceran 3.

Adapun persamaan regresi y = 0,0402x + 0,0355; konsentrasi dan faktor koreksi pada jam ke-8 secara berturut-turut yaitu 19,241 µg/mL dan 95,796 µg.

Untuk mencari konsentrasi obat dalam µg/mL:

y = 0,0402x + 0,0355

$$x = \frac{y - 0{,}0355}{0{,}0402}$$

$$x = \frac{0{,}908 - 0{,}0355}{0{,}0402}$$

$$x = 21{,}704\ \mu g/mL$$

Maka, dalam 1 mL yang dicuplik 21,704 µg obat

Konsentrasi dalam kompartemen reseptor = Konsentrasi dalam 1 mL x Faktor Pengenceran x Volume kompartemen reseptor

Konsentrasi dalam kompartemen reseptor = 21,704 µg/mL x 3 x 13 mL = 846,455 µg

Faktor koreksi = Konsentrasi dalam 1 mL pada jam sebelumnya + Faktor koreksi pada jam sebelumnya

Faktor koreksi = 19,241 µg + 95,796 µg

Faktor koreksi = 115,037 µg

Jumlah obat yang terpermeasi = Konsentrasi dalam 13 mL + Faktor koreksi

Jumlah obat yang terpermeasi = 846,455 µg + 115,037 µg

Jumlah obat yang terpermeasi = 961,492 µg = 0,961 mg

Lampiran 6. Hasil Fluks

Tabel 16. Hasil fluks *ex vivo* HFMAP F6 80' - F1R

Jam ke-	F1				
	TEL yang terpermeasi (µg)	Permeat kumulatif (µg)	Fluks (µg/cm²jam)	Rata-rata	SD
0,25	18,271	18,271	25,777	26,081	0,263
	18,595	18,595	26,233		
	18,595	18,595	26,233		
0,5	35,846	54,117	38,174	39,326	1,278
	36,841	55,435	39,104		
	39,104	57,699	40,700		
0,75	64,366	118,483	55,718	56,849	1,135
	65,435	120,871	56,841		
	65,609	123,308	57,987		
1	109,104	227,587	80,269	81,597	1,371
	110,249	231,119	81,515		
	112,040	235,348	83,006		
2	383,619	611,206	107,785	108,097	0,271
	382,898	614,017	108,281		
	378,346	613,694	108,224		
3	400,796	1012,002	118,977	119,703	0,740
	403,930	1017,948	119,675		
	410,896	1024,590	120,456		
4	488,022	1500,025	132,263	133,235	1,064

	491,231	1509,179	133,070		
	499,341	1523,930	134,371		
5	621,866	2121,891	149,677	150,849	1,259
	627,090	2136,269	150,691		
	633,458	2157,388	152,181		
6	717,127	2839,017	166,885	167,648	0,828
	713,744	2850,012	167,532		
	709,590	2866,978	168,529		
7	749,453	3588,470	180,806	181,516	0,958
	745,000	3595,012	181,135		
	757,214	3624,192	182,606		
8	846,206	4434,677	195,512	196,410	1,204
	849,391	4444,403	195,941		
	861,903	4486,095	197,779		
24	961,493	5396,169	79,300	79,528	0,390
	952,139	5396,542	79,306		
	956,219	5442,313	79,979		

Tabel 17. Hasil fluks *ex vivo* HFMAP F6 80' - F2R

Jam ke-	F2R				
	TEL yang terpermeasi (µg)	Permeat kumulatif (µg)	Fluks (µg/cm²jam)	Rata-rata	SD
0,25	19,241	19,241	27,145	27,602	0,790
	19,241	19,241	27,145		
	20,211	20,211	28,514		
0,5	37,214	56,455	39,823	41,437	1,896
	38,831	58,072	40,964		
	41,493	61,704	43,526		
0,75	70,684	127,139	59,789	61,352	1,726
	71,779	129,851	61,064		
	72,699	134,403	63,205		
1	119,453	246,592	86,972	89,370	2,522
	122,886	252,736	89,139		
	126,443	260,846	91,999		
2	143,769	390,361	68,839	70,182	1,441
	144,216	396,953	70,002		
	145,759	406,604	71,704		
3	458,731	849,092	99,824	101,083	1,247
	463,060	860,012	101,108		
	463,706	870,311	102,319		
4	510,535	1359,627	119,884	121,421	1,465
	518,843	1378,856	121,579		

	522,400	1392,711	122,801		
5	641,965	2001,592	141,191	142,861	1,664
	646,592	2025,448	142,874		
	656,045	2048,756	144,518		
6	736,679	2738,271	160,963	162,444	1,661
	732,674	2758,122	162,130		
	745,261	2794,017	164,240		
7	789,776	3528,047	177,761	179,206	1,687
	790,498	3548,619	178,798		
	799,502	3593,520	181,060		
8	866,107	4394,154	193,725	194,676	1,168
	859,067	4407,687	194,322		
	851,779	4445,299	195,980		
24	975,945	5370,100	78,917	79,359	0,477
	988,109	5395,796	79,295		
	989,328	5434,627	79,866		

Tabel 18. Hasil fluks *ex vivo* HFMAP F6 80' - F3R

Jam ke-	F3R				
	TEL yang terpermeasi (µg)	Permeat kumulatif (µg)	Fluks (µg/cm²jam)	Rata-rata	SD
0,25	19,888	19,888	28,058	29,883	1,825
	21,182	21,182	29,883		
	22,475	22,475	31,708		
0,5	41,144	61,032	43,052	44,947	1,895
	42,537	63,719	44,947		
	43,930	66,405	46,842		
0,75	87,525	148,557	69,861	71,978	2,046
	89,664	153,383	72,130		
	90,833	157,239	73,943		
1	126,891	275,448	97,149	96,875	0,248
	121,095	274,478	96,807		
	116,841	274,080	96,667		
2	146,803	422,251	74,463	74,459	0,042
	147,973	422,450	74,498		
	147,898	421,978	74,415		
3	477,363	899,614	105,764	106,478	0,634
	485,100	907,550	106,696		
	487,935	909,913	106,974		
4	537,351	1436,965	126,703	127,677	0,901
	542,376	1449,925	127,846		

	547,226	1457,139	128,482		
5	682,985	2119,950	149,540	149,880	0,299
	676,493	2126,418	149,996		
	670,796	2127,935	150,103		
6	769,938	2889,888	169,876	170,429	0,482
	776,853	2903,271	170,662		
	776,828	2904,764	170,750		
7	828,632	3718,520	187,358	187,826	0,539
	822,139	3725,410	187,706		
	834,726	3739,490	188,415		
8	896,132	4614,652	203,446	204,149	0,866
	899,167	4624,577	203,884		
	913,047	4652,537	205,117		
24	997,861	5612,512	82,480	82,957	0,525
	1014,552	5639,129	82,871		
	1030,721	5683,259	83,519		

Contoh Perhitungan Fluks

Diketahui diameter kulit yang digunakan adalah 1,9 cm

Maka, luas kulit tikus:

$A = \pi \times r^2$

$A = 3{,}14 \times (\frac{1{,}9}{2}\ cm)^2 = 2{,}8353\ cm^2$

Adapun akumulasi telmisartan yang terpermeasi pada F1R jam ke-24 replikasi pertama sebanyak:

$m_{kum} = \sum_{n-0,25}^{24}$ Obat yang terpermeasi pada jam ke-n

m_{kum} = 18,271 µg + 35,846 µg + 64,366 µg + 109,104 µg + 383,619 µg + 400,796 µg + 488,022 µg + 621,866 µg + 717,127 µg + 749,453 µg + 846,206 µg + 961,493 µg

m_{kum} = 5396,169 µg

$J = \frac{mkum}{At}$

$J = \frac{5396{,}169\ \mu g}{2{,}8353 cm2 \times 24\ jam} = 79{,}3\ \mu g/cm^2 jam$

Lampiran 7. Data Hasil Analisis Statistika

Lampiran 7.1 Uji *Swelling hydrogel forming film*

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
Persen_Swelling	F1A	.384	3	.	.753	3	.006
	F1B	.232	3	.	.980	3	.726
	F1C	.193	3	.	.997	3	.892
	F2A	.181	3	.	.999	3	.942
	F2B	.210	3	.	.991	3	.819
	F2C	.383	3	.	.754	3	.009
	F3A	.241	3	.	.974	3	.689
	F3B	.288	3	.	.929	3	.485
	F3C	.285	3	.	.932	3	.497
	F4A	.382	3	.	.758	3	.018
	F4B	.183	3	.	.999	3	.930
	F4C	.287	3	.	.930	3	.489
	F5A	.383	3	.	.754	3	.008
	F5B	.382	3	.	.757	3	.016
	F5C	.177	3	.	1.000	3	.970
	F6A	.383	3	.	.755	3	.011
	F6B	.214	3	.	.989	3	.802
	F6C	.250	3	.	.966	3	.648

a. Lilliefors Significance Correction

Data tdk terdistribusi normal

Test Statistics[a,b]

	Persen_Swelling
Kruskal-Wallis H	43.960
df	17
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable: Formula

Hasil signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula

b. Not corrected for ties.

F1A dan F1B signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	3.000
Wilcoxon W	9.000
Z	-.655
Asymp. Sig. (2-tailed)	.513
Exact Sig. [2*(1-tailed Sig.)]	.700[b]

a. Grouping Variable: Formula

b. Not corrected for ties.

F1A dan F1C signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	2.000
Wilcoxon W	8.000

Z	-1.091
Asymp. Sig. (2-tailed)	.275
Exact Sig. [2*(1-tailed Sig.)]	.400[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F1B dan F1C signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	4.000
Wilcoxon W	10.000
Z	-.218
Asymp. Sig. (2-tailed)	.827
Exact Sig. [2*(1-tailed Sig.)]	1.000[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F2A dan F2B signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	4.000
Wilcoxon W	10.000
Z	-.218
Asymp. Sig. (2-tailed)	.827
Exact Sig. [2*(1-tailed Sig.)]	1.000[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F2A dan F2C signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	4.000
Wilcoxon W	10.000
Z	-.218
Asymp. Sig. (2-tailed)	.827

Exact Sig. [2*(1-tailed Sig.)]	1.000[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F2B dan F2C signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F3A dan F3B signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F3A dan F3C signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula

b. Not corrected for ties.

F3B dan F3C signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula

b. Not corrected for ties.

F4A dan F4B signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula

b. Not corrected for ties.

F4A dan F4C signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula

b. Not corrected for ties.

F4B dan F4C signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	3.000
Wilcoxon W	9.000
Z	-.655
Asymp. Sig. (2-tailed)	.513
Exact Sig. [2*(1-tailed Sig.)]	.700[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F5A dan F5B signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	4.000
Wilcoxon W	10.000
Z	-.218
Asymp. Sig. (2-tailed)	.827
Exact Sig. [2*(1-tailed Sig.)]	1.000[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F5A dan F5C signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F5B dan F5C signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000

Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F6A dan F6B signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F6A dan F6C signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F6B dan F6C signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	3.000
Wilcoxon W	9.000
Z	-.655

Asymp. Sig. (2-tailed)	.513
Exact Sig. [2*(1-tailed Sig.)]	.700[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F1A dan F2A signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F1A dan F3A signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	2.000
Wilcoxon W	8.000
Z	-1.091
Asymp. Sig. (2-tailed)	.275
Exact Sig. [2*(1-tailed Sig.)]	.400[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F1A dan F4A signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	3.000
Wilcoxon W	9.000
Z	-.655
Asymp. Sig. (2-tailed)	.513
Exact Sig. [2*(1-tailed Sig.)]	.700[b]

a. Grouping Variable: Formula

b. Not corrected for ties.

F1A dan F5A signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	2.000
Wilcoxon W	8.000
Z	-1.091
Asymp. Sig. (2-tailed)	.275
Exact Sig. [2*(1-tailed Sig.)]	.400[b]

a. Grouping Variable: Formula

b. Not corrected for ties.

F1A dan F6A signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula

b. Not corrected for ties.

F2A dan F3A signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	3.000
Wilcoxon W	9.000
Z	-.655
Asymp. Sig. (2-tailed)	.513
Exact Sig. [2*(1-tailed Sig.)]	.700[b]

a. Grouping Variable: Formula

b. Not corrected for ties.

F2A dan F4A signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	3.000
Wilcoxon W	9.000
Z	-.655
Asymp. Sig. (2-tailed)	.513
Exact Sig. [2*(1-tailed Sig.)]	.700[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F2A dan F5A signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	3.000
Wilcoxon W	9.000
Z	-.655
Asymp. Sig. (2-tailed)	.513
Exact Sig. [2*(1-tailed Sig.)]	.700[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F2A dan F6A signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F3A dan F4A signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000

Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F3A dan F5A signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F3A dan F6A signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	3.000
Wilcoxon W	9.000
Z	-.655
Asymp. Sig. (2-tailed)	.513
Exact Sig. [2*(1-tailed Sig.)]	.700[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F4A dan F5A signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	2.000
Wilcoxon W	8.000
Z	-1.091

Asymp. Sig. (2-tailed)	.275
Exact Sig. [2*(1-tailed Sig.)]	.400[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F4A dan F6A signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	3.000
Wilcoxon W	9.000
Z	-.655
Asymp. Sig. (2-tailed)	.513
Exact Sig. [2*(1-tailed Sig.)]	.700[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F5A dan F6A signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F1B dan F2B signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F1B dan F3B signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula

b. Not corrected for ties.

F1B dan F4B signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	3.000
Wilcoxon W	9.000
Z	-.655
Asymp. Sig. (2-tailed)	.513
Exact Sig. [2*(1-tailed Sig.)]	.700[b]

a. Grouping Variable: Formula

b. Not corrected for ties.

F1B dan F5B signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula

b. Not corrected for ties.

F1B dan F6B signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000

Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F2B dan F3B signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F2B dan F4B signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	3.000
Wilcoxon W	9.000
Z	-.655
Asymp. Sig. (2-tailed)	.513
Exact Sig. [2*(1-tailed Sig.)]	.700[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F2B dan F5B signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050

Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F2B dan F6B signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F4B dan F5B signifikan

Test Statistics[a]

	Persen_Swelling
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F4C dan F5C signifikan

Ket:
F1A = F1 40 menit
F1B = F1 80 menit
F1C = F1 120 menit
F2A = F2 40 menit
F2B = F1 40 menit
F3B = F1 80 menit
F3A = F2 40 menit
F3B = F1 40 menit
F3C = F1 80 menit

Lampiran 7.2 Uji Fraksi gel *hydrogel forming film*

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
Fraksi_Gel	F1A	.374	3	.	.777	3	.061
	F1B	.377	3	.	.770	3	.044
	F1C	.188	3	.	.998	3	.911
	F2A	.382	3	.	.756	3	.014
	F2B	.189	3	.	.998	3	.905
	F2C	.384	3	.	.752	3	.004
	F3A	.197	3	.	.996	3	.875
	F3B	.226	3	.	.983	3	.754
	F3C	.260	3	.	.958	3	.608
	F4A	.382	3	.	.756	3	.014
	F4B	.215	3	.	.989	3	.800
	F4C	.283	3	.	.934	3	.504
	F5A	.194	3	.	.997	3	.887
	F5B	.383	3	.	.754	3	.008
	F5C	.208	3	.	.992	3	.830
	F6A	.298	3	.	.915	3	.435
	F6B	.195	3	.	.996	3	.881
	F6C	.225	3	.	.984	3	.757

a. Lilliefors Significance Correction

Data tdk terdistribusi normal

Test Statistics[a,b]

	Fraksi_Gel
Kruskal-Wallis H	37.800
df	17
Asymp. Sig.	.003

a. Kruskal Wallis Test
b. Grouping Variable: Formula

Tidak signifikan

Test Statistics[a]

	Fraksi_Gel
Mann-Whitney U	3.000
Wilcoxon W	9.000
Z	-.655
Asymp. Sig. (2-tailed)	.513
Exact Sig. [2*(1-tailed Sig.)]	.700[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F4A dan F4B signifikan

Test Statistics[a]

	Fraksi_Gel
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F4A dan F4C signifikan

Test Statistics[a]

	Fraksi_Gel
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F4B dan F4C signifikan

Test Statistics[a]

	Fraksi_Gel
Mann-Whitney U	3.000
Wilcoxon W	9.000
Z	-.655
Asymp. Sig. (2-tailed)	.513
Exact Sig. [2*(1-tailed Sig.)]	.700[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F5A dan F5B signifikan

Test Statistics[a]

	Fraksi_Gel
Mann-Whitney U	4.000
Wilcoxon W	10.000
Z	-.218
Asymp. Sig. (2-tailed)	.827
Exact Sig. [2*(1-tailed Sig.)]	1.000[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F5A dan F5C signifikan

Test Statistics[a]

	Fraksi_Gel
Mann-Whitney U	3.000

Wilcoxon W	9.000
Z	-.655
Asymp. Sig. (2-tailed)	.513
Exact Sig. [2*(1-tailed Sig.)]	.700[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F5B dan F5C signifikan

Test Statistics[a]

	Fraksi_Gel
Mann-Whitney U	1.000
Wilcoxon W	7.000
Z	-1.528
Asymp. Sig. (2-tailed)	.127
Exact Sig. [2*(1-tailed Sig.)]	.200[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F4A dan F5A signifikan

Test Statistics[a]

	Fraksi_Gel
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F4B dan F5B signifikan

Test Statistics[a]

	Fraksi_Gel
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050

Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F4C dan F5C signifikan

Lampran 7.3 Uji Kekerasan Reservoir

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
Kekerasan_Reservoir	F1	.353	3	.	.824	3	.174
	F2	.385	3	.	.750	3	.000
	F3	.219	3	.	.987	3	.780

a. Lilliefors Significance Correction

Test Statistics[a,b]

	Kekerasan_Reservoir
Kruskal-Wallis H	7.261
df	2
Asymp. Sig.	.027

a. Kruskal Wallis Test
b. Grouping Variable: Formula

Tidak signifikan

Test Statistics[a]

	Kekerasan_Reservoir
Mann-Whitney U	.000

Wilcoxon W	6.000
Z	-1.993
Asymp. Sig. (2-tailed)	.046
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F1-F2 Tidak signifikan

Test Statistics[a]

	Kekerasan_Reservoir
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F1-F3 Tidak signifikan

Test Statistics[a]

	Dissolution_time_reservoir
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

F2-F3 Tidak signifikan

Lampiran 7.4 Uji Waktu larut reservoir

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
Dissolution_time_reservoir	F1	.314	3	.	.893	3	.363
	F2	.253	3	.	.964	3	.637
	F3	.253	3	.	.964	3	.637

a. Lilliefors Significance Correction

ANOVA

Dissolution_time_reservoir

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1784.222	2	892.111	143.375	.000
Within Groups	37.333	6	6.222		
Total	1821.556	8			

Tidak signifikan

Multiple Comparisons

Dependent Variable: Dissolution_time_reservoir

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
F1	F2	14.33333*	2.03670	.001	8.0842	20.5825
	F3	34.33333*	2.03670	.000	28.0842	40.5825
F2	F1	-14.33333*	2.03670	.001	-20.5825	-8.0842
	F3	20.00000*	2.03670	.000	13.7508	26.2492
F3	F1	-34.33333*	2.03670	.000	-40.5825	-28.0842
	F2	-20.00000*	2.03670	.000	-26.2492	-13.7508

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

Lampiran 7.5 Uji Permeasi *ex vivo* F4 80' HFMAP kombinasi reservoir TEL-PEG

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
Penetrasi	F1	.314	3	.	.893	3	.365
	F2	.179	3	.	.999	3	.948
	F3	.323	3	.	.878	3	.318

a. Lilliefors Significance Correction

ANOVA

Penetrasi

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4098115392685717500.000	2	2049057696342858750.000	4427.284	.000
Within Groups	2776950037421675.500	6	462825006236945.940		
Total	4100892342723139100.000	8			

Multiple Comparisons

Dependent Variable: Penetrasi

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
F1	F2	1467967136.00000*	17565591.48329	.000	1414071077.6682	1521863194.3318
	F3	1391906103.00000*	17565591.48329	.000	1338010044.6682	1445802161.3318
F2	F1	-1467967136.00000*	17565591.48329	.000	-1521863194.3318	-1414071077.6682
	F3	-76061033.00000*	17565591.48329	.012	-129957091.3318	-22164974.6682

F3	F1	-1391906103.00000*	17565591.48329	.000	-144580216 1.3318	-1338010044.6682
	F2	76061033.00000*	17565591.48329	.012	22164974.6682	129957091.3318

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

Lampiran 7.6 Hasil fluks *ex vivo* F4 80' HFMAP kombinasi reservoir TEL - PEG

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
Flux	F1	.336	3	.	.855	3	.255
	F2	.238	3	.	.976	3	.702
	F3	.256	3	.	.962	3	.625

a. Lilliefors Significance Correction

ANOVA

Flux

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	101086613.556	2	50543306.778	164.770	.000
Within Groups	1840502.000	6	306750.333		
Total	102927115.556	8			

Multiple Comparisons

Dependent Variable: Flux

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
F1	F2	-3938.66667*	452.21701	.000	-5326.1926	-2551.1407
	F3	-8207.00000*	452.21701	.000	-9594.5260	-6819.4740
F2	F1	3938.66667*	452.21701	.000	2551.1407	5326.1926
	F3	-4268.33333*	452.21701	.000	-5655.8593	-2880.8074
F3	F1	8207.00000*	452.21701	.000	6819.4740	9594.5260
	F2	4268.33333*	452.21701	.000	2880.8074	5655.8593

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