

LAMPIRAN A

PERHITUNGAN STATISTIK KURVA BAKU

Data Kurva Baku Propranolol HCl dalam Larutan Dapar Fosfat
Isotonis pH 7,4 Pengujian I

Konsentrasi	Abs	X ²	Y ²	XY
5,03	0,113	25,3009	0,0177	0,5684
15,09	0,294	227,7081	0,0864	4,4365
25,15	0,500	632,5225	0,2500	12,5750
35,21	0,752	1239,7441	0,5655	26,4779
45,27	0,921	2049,3729	0,8482	41,6937

$$\Sigma = 4174,6485 \quad \Sigma = 1,7678 \quad \Sigma = 85,7515$$

Data Kurva Baku Propranolol HCl dalam Larutan Dapar Fosfat Isotonis pH
7,4 Pengujian 2

Konsentrasi	Abs	X ²	Y ²	XY
5,01	0,097	25,1001	0,0094	0,4860
15,03	0,263	225,9009	0,0692	3,9529
25,05	0,466	627,5025	0,2172	11,6733
35,07	0,697	1229,9049	0,4858	24,4438
45,09	0,848	2033,1081	0,7191	38,2363

$$\Sigma = 4141,5165 \quad \Sigma = 1,5007 \quad \Sigma = 78,7923$$

Data Kurva Baku Propranolol HCl dalam Larutan Dapar Fosfat Isotonis pH 7,4 Pengujian III

Konsentrasi	Abs	X ²	Y ²	XY		
5,02	0,115	25,2004	0,0132	0,5773		
15,06	0,282	226,8063	0,0795	4,2469		
25,10	0,497	630,0100	0,2470	12,4747		
35,14	0,691	1234,8196	0,4775	24,2817		
45,18	0,870	2041,2324	0,7569	39,3066		
		Σ = 4158,0660	Σ = 1,5741	Σ = 80,8872		
	Σ X ²	ΣXY	ΣY ²	N	Ssi	RDF
I	4174,6485	85,7515	1,7678	5	1,7473	4
II	4141,5165	78,7923	1,5007	5	1,4817	4
III	4158,0660	80,8872	1,5741	5	1,5546	4
	12474,2310	245,4310	4,8426		4,7836	

$$\begin{aligned} SSc &= \Sigma Yc - [(\Sigma Xyc)^2 / \Sigma Xc] \\ &= 4,8426 - [245,4310 / 12474,2310] = 4,8229 \end{aligned}$$

$$\begin{aligned} SSp &= SS1 + SS2 + SS3 \\ &= 1,7473 + 1,4817 + 1,5546 = 4,7836 \end{aligned}$$

$$\begin{aligned} F_{hitung} &= (SSc - SSp / k - 1) / (SSp / 12) \\ &= (4,82292496 - 4,7836 / 3 - 1) / (4,7836 / 12) = 0,0493 \end{aligned}$$

LAMPIRAN B

PERHITUNGAN MOISTURE CONTENT (MC)

Formula -1

W (gram)	W _p (gram)	W _a (gram)	MC (%)
0,414	0,384	0,030	7,8 %
0,407	0,378	0,029	7,67 %
0,418	0,388	0,030	7,73 %

Formula a

W (gram)	W _p (gram)	W _a (gram)	MC (%)
0,318	0,278	0,040	14,39 %
0,310	0,270	0,040	14,81 %
0,321	0,280	0,041	14,64 %

Formula b

W (gram)	W _p (gram)	W _a (gram)	MC (%)
0,365	0,314	0,051	16,24 %
0,378	0,325	0,053	16,31 %
0,369	0,319	0,050	15,67 %

Formula ab

W (gram)	W _p (gram)	W _a (gram)	MC (%)
0,291	0,251	0,040	15,94
0,301	0,260	0,041	15,77
0,296	0,255	0,041	16,08

Keterangan :

W = berat mula-mula

W_p = berat kering (setelah dioven 100 ± 2°C selama 6 jam)

W_a = selisih antara W dan W_p

$$MC = \frac{W_a}{W_p} \times 100\%$$

LAMPIRAN C

Anova: Single Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Column 1	3	23,2	7,733333	0,004233
Column 2	3	43,84	14,61333	0,044633
Column 3	3	48,22	16,07333	0,123233
Column 4	3	47,79	15,93	0,0241

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	140,9708	3	46,99028	958,0076	1,46E-10	4,066181
Within Groups	0,3924	8	0,04905			
Total	141,3632	11				

LAMPIRAN D

Tabel 4.4. Hasil Akurasi dan Presisi penetapan kadar propranolol HCl dalam Larutan Dapar Fosfat Isotonis pH 7,4 dalam Formula Blangko ab

Replikasi	%	Abs	FP	C(ppm)	C(teoritis)	perolehan kembali
1	80	0,500	2,5	63,9659	64,768	98,76
	100	0,628	2,5	80,7199	80,960	99,70
	120	0,753	2,5	97,0811	97,152	99,93
2	80	0,503	2,5	64,3586	65,024	98,98
	100	0,632	2,5	81,2434	81,280	99,96
	120	0,758	2,5	97,7356	97,536	100,20
3	80	0,505	2,5	64,6204	64,256	100,57
	100	0,625	2,5	80,3272	80,320	100,01
	120	0,755	2,5	97,3429	96,384	100,99

Contoh perhitungan :

Dari hasil serapan dimasukkan ke dalam persamaan kurva baku terpilih yaitu

$$y = 0,0191x + 0,0113$$

Dimana:

y = Serapan

x = Konsentrasi teramat

Kemudian Hitung % perolehan kembali dengan rumus :

$$\% \text{ perolehan kembali} = \frac{\text{Kadar teramat}}{\text{kadar teoritis}} \times 100\%$$

Misal : data replikasi 1

$$y = 0,0191x + 0,0113$$

$$0,507 = 0,0191x + 0,0113$$

$$x = 64,8428.$$

$$\% \text{ perolehan kembali} = (64,8428/64,768) \times 100\% = 100,11\%$$

LAMPIRAN E

Tabel 4.5. Hasil Penetapan Kadar Patch Propranolol HCl

Formula	Uji	Abs	C (ppm)	C (mg/cm ²)	± SD
- 1	1	0,473	3,33	79,7701	4,0513 ± 0,06
	2	0,480	3,33	80,9796	
	3	0,485	3,33	81,8434	
a	1	0,479	3,33	80,8068	4,0863 ± 0,03
	2	0,483	3,33	81,4979	
	3	0,487	3,33	82,1890	
b	1	0,475	3,33	80,1157	4,0853 ± 0,04
	2	0,480	3,33	80,9796	
	3	0,485	3,33	81,8434	
ab	1	0,477	3,33	80,4612	4,0937 ± 0,03
	2	0,481	3,33	81,1523	
	3	0,486	3,33	82,0162	

LAMPIRAN F

Tabel 4.11. Hasil Uji Akurasi dan Presisi untuk Uji Pelepasan dalam Dapar Fosfat Isotonis pH 7,4 dalam Formula ab

Replikasi	%	Abs	C (ppm)	C (Teoritis)	% Perolehan Kembali
1	80	0,463	18,09	18,40	98,3152
	100	0,564	24,43	24,05	101,58
	120	0,644	29,45	29,06	101,34
2	80	0,470	18,65	18,40	101,36
	100	0,561	24,24	24,05	100,79
	120	0,639	29,14	29,06	100,79
3	80	0,469	18,47	18,40	100,38
	100	0,563	24,37	24,05	101,33
	120	0,641	29,27	29,06	100,72

LAMPIRAN G

HASIL UJI ANOVA PELEPASAN PROPANOL HCL DENGAN DESAIN FAKTORIAL

Response 1 PELEPASAN ANOVA for selected factorial model

Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean Square	F Value	p-value Prob>F
Model		130.54	3	43.51	30.75 <0.0001
<i>A-HPMC</i>	<i>128.05</i>	<i>1</i>	<i>128.05</i>	<i>90.50</i>	<i><0.0001</i>
<i>B-OLEIC ACID</i>	<i>0.56</i>	<i>1</i>	<i>0.56</i>	<i>0.40</i>	<i>0.5457</i>
<i>AB</i>	<i>1.92</i>	<i>1</i>	<i>1.92</i>	<i>0,2776</i>	
Pure Error	11.32	8	1.42		
Cor Total	141.86	11			

The Model F-value of 30.75 implies the model is significant. There is only a 0.01% chance that a "Model F-Value" this large could occur due to noise. Values of "Prob > F" less than 0.0500 indicate model terms are significant. In this case A are significant model terms.

Values greater than 0.1000 indicate the model terms are not significant.

If there are many insignificant model terms (not counting those required to support hierarchy), model reduction may improve your model.

Std. Dev.	1.19	R-Squared	0.9202
Mean	168.22	Adj R-Squared	0.8903
C.V. %	0.71	Pred R-Squared	0.8205
PRESS	25.47	Adeq Precision	10.678

The "Pred R-Squared" of 0.8205 is in reasonable agreement with the "Adj R-Squared" of 0.8903.

"Adeq Precision" measures the signal to noise ratio. A ratio greater than 4 is desirable. Your ratio of 10.678 indicates an adequate signal. This model can be used to navigate the design space.

Coefficient Factor	Standard Estimate	95% CI df	95% CI Error	95% CI low	High
Intercept	168.22	1	0.34	167.42	169.01
A-HPMC	3.27	1	0.34	2.47	4.06
B-OLEIC ACID	0.22	1	0.34	-0.58	1.01
AB-0.40	1	0.34	-1.19	0.39	1.00

Final Equation in Terms of Coded Factors:

$$\begin{aligned}
 &\text{PELEPASAN} \\
 &+168.22 \\
 &+3.27 \quad * A \\
 &+0.22 \quad * B \\
 &-0.40 \quad * A * B
 \end{aligned}
 =$$

Final Equation in Terms of Actual Factors:

$$\begin{aligned}
 &\text{PELEPASAN} \\
 &+168.21667 \\
 &+3.26667 \quad * \text{HPMC} \\
 &+0.21667 \quad * \text{OLEIC ACID} \\
 &-0.40000 \quad * \text{HPMC} * \text{OLEIC ACID}
 \end{aligned}
 =$$

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node.

In the Diagnostics Node, Select Case Statistics from the View Menu.

Proceed to Diagnostic Plots (the next icon in progression). Be sure to look at the:

- 1) Normal probability plot of the studentized residuals to check for normality of residuals.
- 2) Studentized residuals versus predicted values to check for constant error.
- 3) Externally Studentized Residuals to look for outliers, i.e., influential values.
- 4) Box-Cox plot for power transformations.

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon.

HASIL UJI ANOVA PENETRASI PROPANOL HCL DENGAN DESAIN FAKTORIAL

Response 2 PENETRASI					
ANOVA for selected factorial model					
Analysis of variance table [Partial sum of squares - Type III]					
Source	Sum of Squares	df	Mean Square	F Value	p-value Prob > F
Model	57.95		3	19.32	<0.0001
<i>A-HPMC</i>	19.10	1	19.10	187.62	< 0.0001
<i>B-OLEIC ACID</i>	34.41	1	34.41	337.97	< 0.0001
<i>AB4.44</i>	1	4.44	43.62	0.0002	
Pure Error	0.81	8	0.10		
Cor Total	58.77	11			

The Model F-value of 189.74 implies the model is significant. There is only a 0.01% chance that a "Model F-Value" this large could occur due to noise.

Values of "Prob > F" less than 0.0500 indicate model terms are significant. In this case A, B, AB are significant model terms.

Values greater than 0.1000 indicate the model terms are not significant.

If there are many insignificant model terms (not counting those required to support hierarchy), model reduction may improve your model.

Std. Dev.	0.32	R-Squared	0.9861
Mean	47.07	Adj R-Squared	0.9809
C.V. %	0.68	Pred R-Squared	0.9688
PRESS	1.83	Adeq Precision	32.082

The "Pred R-Squared" of 0.9688 is in reasonable agreement with the "Adj R-Squared" of 0.9809.

"Adeq Precision" measures the signal to noise ratio. A ratio greater than 4 is desirable. Your ratio of 32.082 indicates an adequate signal. This model can be used to navigate the design space.

Coefficient Factor	Standard Estimate	95% CI df	95% CI Error	95% CI Low	High
Intercept	47.07	1	0.092	46.86	47.29
A-HPMC	1.26	70	0.092	1.05	1.47
B-OLEIC ACID	1.69	1	0.092	1.48	1.91
AB0.61	1	0.092	0.40	0.82	1.00

Final Equation in Terms of Coded Factors:

$$\begin{aligned}
 &\text{PENETRASI} \\
 &+47.07 \\
 &+1.26 \quad * A \\
 &+1.69 \quad * B \\
 &+0.61 \quad * A * B
 \end{aligned}
 =$$

Final Equation in Terms of Actual Factors:

$$\begin{aligned}
 &\text{PENETRASI} \\
 &+47.07333 \\
 &+1.26167 \quad * \text{HPMC} \\
 &+1.69333 \quad * \text{OLEIC ACID} \\
 &+0.60833 \quad * \text{HPMC} * \text{OLEIC ACID}
 \end{aligned}
 =$$

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node.

In the Diagnostics Node, Select Case Statistics from the View Menu.

Proceed to Diagnostic Plots (the next icon in progression). Be sure to look at the:

- 1) Normal probability plot of the studentized residuals to check for normality of residuals.
- 2) Studentized residuals versus predicted values to check for constant error.
- 3) Externally Studentized Residuals to look for outliers, i.e., influential values.
- 4) Box-Cox plot for power transformations.

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon.

LAMPIRAN H

DATA PELEPASAN PROPANOLOL HC1

1. Hasil Uji Pelepasan Patch Propanolol Formula -1

Replikasi	t(jam)	Abs	Cn'(ppm)	FP	Qt ($\mu\text{g}/\text{cm}^2$)
1	0,25	0,25	12,4911		106,827579
	0,5	0,345	17,4614		149,290424
	0,75	0,411	20,9145		178,790926
	1	0,503	25,7278		219,912839
	1,5	0,64	32,8955		281,148732
	2	0,783	40,3771		345,066488
	2,5	0,885	45,7136		390,658174
	3	,981	50,7362		433,567996
	4	0,57	29,2332	3,3	824,539055
	5	0,651	33,4710	3,3	944,016091
	6	0,668	34,3604	3,3	969,091519
2	0,25	0,263	13,1712		112,638284
	0,5	0,348	17,6184		150,631355
	0,75	0,421	21,4377		183,2607
	1	0,516	26,4079		225,723545
	1,5	,65	33,4187		285,618505
	2	0,786	40,5341		346,40742
	2,5	0,883	45,6090		389,764219
	3	0,982	50,7886		434,014974
	4	0,576	29,5471	3,3	833,389205
	5	0,65	33,4187	3,3	942,541066
	6	0,671	34,5174	3,3	973,516594
3	0,25	0,258	12,9097		110,403397
	0,5	0,339	17,1475		146,60856
	0,75	0,418	21,2807		181,919768
	1	0,508	25,9894		222,147726
	1,5	0,646	33,2094		283,830596
	2	0,781	40,2725		344,172533
	2,5	0,881	45,5044		388,870265
	3	0,984	50,8932		434,908928
	4	0,577	29,5994	3,3	834,864231
	5	0,648	33,3141	3,3	939,591016
	6	0,668	34,3604	3,3	969,091519

Keterangan : Luas Membran $7,065 \text{ cm}^2$

2. Hasil Uji Pelepasan Patch Propranolol Formula a

Replikasi	t(jam)	Abs	Cn'(ppm)	FP	Qt ($\mu\text{g}/\text{cm}^2$)
1	0,25	0,319	16,1011		137,669013
	0,5	0,429	21,8562		186,836518
	0,75	0,53	27,1404		231,981227
	1	0,71	36,5578		312,437144
	1,5	0,806	41,5804		355,346966
	2	0,975	50,4223		430,886133
	2,5	1,246	64,6008		552,016985
	3	0,653	33,5757		573,918874
	4	0,66	33,9419	3,3	957,291317
	5	0,685	35,2499	3,3	994,166946
	6	0,716	36,8717	3,3	1039,89273
2	0,25	0,31	15,6303		133,646217
	0,5	0,421	21,4377		183,2607
	0,75	0,524	26,8265		229,299363
	1	0,699	35,9823		307,520393
	1,5	0,805	41,5281		354,899989
	2	0,967	50,0038		427,310314
	2,5	1,205	62,4557		533,690915
	3	0,65	33,4187		571,23701
	4	0,66	33,9419	3,3	957,291317
	5	0,687	35,3545	3,3	997,116996
	6	0,715	36,8194	3,3	1038,4177
3	0,25	0,325	16,415		140,350877
	0,5	0,436	22,2224		189,965359
	0,75	0,539	27,6113		236,004023
	1	0,711	36,6102		312,884121
	1,5	0,815	42,0513		359,369762
	2	0,983	50,8409		434,461951
	2,5	1,287	66,7458		570,343055
	3	0,655	33,6803		575,706783
	4	0,665	34,2035	3,3	964,666443
	5	0,691	35,5638	3,3	1003,0171
	6	0,725	37,3426	3,3	1053,16795

Keterangan : Luas Membran $7,065 \text{ cm}^2$

3. Hasil Uji Pelepasan Patch Propranolol Formula b

Replikasi	t(jam)	Abs	Cn'(ppm)	FP	Qt ($\mu\text{g}/\text{cm}^2$)
1	0,25	0,267	13,3806		114,426193
	0,5	0,325	16,415		140,350877
	0,75	0,397	20,182		172,533244
	1	0,487	24,8907		212,761202
	1,5	0,621	31,9014		272,656163
	2	0,789	40,691		347,748352
	2,5	0,887	45,8183		391,552129
	3	0,998	51,6257		441,166611
	4	0,597	30,6458	3,3	864,364733
	5	0,634	32,5816	3,3	918,940664
	6	0,656	33,7326	3,3	951,391217
2	0,25	0,26	13,0143		111,297352
	0,5	0,315	15,8919		135,881104
	0,75	0,387	19,6588		168,063471
	1	0,478	24,4198		208,738407
	1,5	0,615	31,5875		269,974299
	2	0,782	40,3248		344,619511
	2,5	0,881	45,5044		388,870265
	3	0,99	51,2071		437,590792
	4	0,615	31,5875	3,3	890,915186
	5	0,637	32,7385	3,3	923,365739
	6	0,65	33,4187	3,3	942,541066
3	0,25	0,262	13,1189		112,191306
	0,5	0,31	15,6303		133,646217
	0,75	0,392	19,9204		170,298357
	1	0,483	24,6814		210,973293
	1,5	0,62	31,8491		272,209185
	2	0,792	40,8479		349,089284
	2,5	0,897	46,3415		396,021902
	3	0,999	51,678		441,613588
	4	0,62	31,8491	3,3	898,290312
	5	0,643	33,0525	3,3	932,21589
	6	0,665	34,2035	3,3	964,666443

Keterangan : Luas Membran $7,065 \text{ cm}^2$

4. Hasil Uji Pelepasan Patch Propranolol Formula ab

Replikasi	t(jam)	Abs	Cn'(ppm)	FP	Qt ($\mu\text{g}/\text{cm}^2$)
1	0,25	0,356	18,0369		154,207174
	0,5	0,489	24,9954		213,655157
	0,75	0,565	28,9716		247,625433
	1	0,767	39,54		337,914851
	1,5	0,887	45,8183		391,552129
	2	0,985	50,9455		435,355906
	2,5	1,121	58,0609		496,144821
	3	0,665	34,2035		584,646329
	4	0,679	34,9359	3,3	985,316795
	5	0,712	36,6625	3,3	1033,99262
	6	0,723	37,2379	3,3	1050,2179
2	0,25	0,345	17,4614		14,290424
	0,5	0,48	24,5245		209,632361
	0,75	0,557	28,553		244,049614
	1	0,759	39,1215		334,339032
	1,5	0,876	45,2428		386,635378
	2	0,98	50,6839		433,121019
	2,5	1,079	55,8635		477,371773
	3	0,65	33,4187		571,23701
	4	0,665	34,2035	3,3	964,666443
	5	0,71	36,5578	3,3	1031,04257
	6	0,729	37,5519	3,3	1059,06805
3	0,25	0,35	17,723		151,52531
	0,5	0,483	24,6814		210,973293
	0,75	0,56	28,71		245,390546
	1	0,756	38,9645		332,9981
	1,5	0,879	45,3997		387,97631
	2	0,976	50,4747		431,33311
	2,5	1,102	57,0668		487,652252
	3	0,654	33,6279		574,812828
	4	0,668	34,3604	3,3	969,091519
	5	0,71	36,5578	3,3	1031,04257
	6	0,73	37,6042	3,3	1060,54308

Keterangan : Luas Membran $7,065 \text{ cm}^2$

LAMPIRAN I
DATA PENETRASI PROPRANOLOL HCI

1. Hasil Uji Penetrasi Patch Propranolol Formula-1

Replikasi	t(jam)	Abs	Cn'(ppm)	Qt ($\mu\text{g}/\text{cm}^2$)
1	0,25	0,171	8,3597	71,5163705
	0,5	0,206	10,1891	87,1605766
	0,75	0,257	12,8574	109,95642
	1	0,313	15,7872	134,987149
	1,5	0,367	18,6124	159,123924
	2	0,425	21,6469	185,048609
	2,5	0,48	24,5245	209,632361
	3	0,567	29,0762	248,519388
	4	0,627	32,2154	275,338027
	5	0,687	35,3545	302,156666
	6	0,724	37,2903	318,694826
2	0,25	0,176	8,6195	73,7512571
	0,5	0,209	10,3461	88,5015085
	0,75	0,26	13,0143	111,297352
	1	0,32	16,1535	138,115991
	1,5	0,376	19,0833	163,14672
	2	0,43	21,9085	187,283495
	2,5	0,488	24,943	213,20818
	3	0,57	29,2332	249,86032
	4	0,638	32,7909	280,254777
	5	0,696	35,8254	306,179461
	6	0,735	37,8658	323,611577
3	0,25	0,181	8,8811	75,9861437
	0,5	0,213	10,5553	90,2894178
	0,75	0,27	13,5375	115,767125
	1	0,321	16,2058	138,562968
	1,5	0,377	19,1356	163,593698
	2	0,436	22,2224	189,965359
	2,5	0,494	25,2569	215,890044
	3	0,576	29,5471	252,542183
	4	0,64	32,8955	281,148732
	5	0,709	36,5055	311,990166
	6	0,743	38,2844	327,187395

Keterangan : Luas Membran $7,065 \text{ cm}^2$

2. Hasil Uji Penetrasi Patch Propranolol Formula a

Replikasi	t(jam)	Abs	Cn'(ppm)	Qt ($\mu\text{g}/\text{cm}^2$)
1	0,25	0,18	8,8288	75,5391664
	0,5	0,214	10,6077	90,7363951
	0,75	0,261	13,0666	111,744329
	1	0,321	16,2058	138,562968
	1,5	0,375	19,031	162,699743
	2	0,398	20,2343	172,980221
	2,5	0,498	25,4662	217,677953
	3	0,546	27,9775	239,132864
	4	0,643	33,0525	282,489664
2	5	0,68	34,9883	299,027824
	6	0,7	36,0346	307,967371
	0,25	0,198	9,7705	83,5847581
	0,5	0,226	11,2355	96,1001229
	0,75	0,287	14,4269	123,365739
	1	0,339	17,1475	146,60856
	1,5	0,387	19,6588	168,063471
	2	0,421	21,4377	183,2607
	2,5	0,483	24,6814	210,973293
3	3	0,557	28,553	244,049614
	4	0,661	33,9942	290,535255
	5	0,698	35,93	307,073416
	6	0,724	37,2903	318,694826
	0,25	0,185	9,0904	77,774053
	0,5	0,22	10,915	93,418259
	0,75	0,271	13,5898	116,214102
	1	0,331	16,7289	143,032741
	1,5	0,385	19,5542	167,169516
	2	0,412	20,9668	179,237904
	2,5	0,474	24,2106	206,950497
	3	0,546	27,9775	239,132864
	4	0,651	33,471	286,065482
	5	0,682	35,0929	299,921779
	6	0,712	36,6625	313,331098

Keterangan : Luas Membran $7,065 \text{ cm}^2$

3. Hasil Uji Penetrasi Patch Propranolol Formula b

Replikasi	t(jam)	Abs	Cn'(ppm)	Qt ($\mu\text{g}/\text{cm}^2$)
1	0,25	0,226	11,2355	96,1001229
	0,5	0,261	13,0666	111,744329
	0,75	0,318	16,0488	137,222036
	1	0,369	18,7171	160,017879
	1,5	0,415	21,1238	180,578836
	2	0,487	24,48907	212,761202
	2,5	0,545	27,9252	238,685887
	3	0,607	31,1689	266,39848
	4	0,686	35,3022	301,709688
2	5	0,756	38,9645	332,9981
	6	0,83	42,8361	366,074422
	0,25	0,223	11,0785	94,759191
	0,5	0,271	13,5898	116,214102
	0,75	0,322	16,2581	139,009945
	1	0,377	19,1356	163,593698
	1,5	0,419	21,333	182,366745
	2	0,493	25,2046	215,443066
	2,5	0,553	28,3438	242,261705
3	3	0,613	31,4829	269,080344
	4	0,691	35,5639	303,944575
	5	0,763	39,3307	336,126942
	6	0,834	43,0454	367,862331
	0,25	0,229	11,3924	97,4410549
	0,5	0,276	13,8514	118,448989
	0,75	0,33	16,6766	142,585764
	1	0,383	19,4495	166,275562
	1,5	0,423	21,5423	184,154654
3	2	0,499	25,5185	218,12493
	2,5	0,557	28,553	244,049614
	3	0,617	31,6922	270,868253
	4	0,698	35,93	307,073416
	5	0,767	39,54	337,914851
	6	0,841	43,4116	370,991172

Keterangan : Luas Membran $7,065 \text{ cm}^2$

4. Hasil Uji Penetrasi Patch Propranolol Formula b

Replikasi	t(jam)	Abs	Cn'(ppm)	Qt ($\mu\text{g}/\text{cm}^2$)
1	0,25	0,23	11,4448	97,8880322
	0,5	0,278	13,9561	119,342943
	0,75	0,335	16,9382	144,82065
	1	0,398	20,2343	172,980221
	1,5	0,445	22,6933	193,988155
	2	0,494	25,2569	215,890044
	2,5	0,578	29,6517	253,436138
	3	0,628	32,2678	275,785004
	4	0,698	35,93	307,073416
	5	0,823	42,4698	362,945581
	6	0,892	46,0798	393,787015
2	0,25	0,235	11,7063	100,122919
	0,5	0,287	14,4269	123,365739
	0,75	0,345	17,4614	149,290424
	1	0,408	20,7575	177,449994
	1,5	0,455	23,2165	198,457928
	2	0,5	25,5709	218,571907
	2,5	0,587	30,1226	257,458934
	3	0,634	32,5816	278,466868
	4	0,709	36,5055	311,990166
	5	0,831	42,8884	366,521399
	6	0,902	46,6031	398,256788
3	0,25	0,241	12,0203	102,804783
	0,5	0,296	14,8978	127,388535
	0,75	0,356	18,0369	154,207174
	1	0,412	20,9668	179,237904
	1,5	0,459	23,4258	200,245838
	2	0,503	25,7278	219,912839
	2,5	0,589	30,2272	258,352889
	3	0,638	32,7909	280,254777
	4	0,716	36,8717	315,119008
	5	0,839	43,3069	370,097218
	6	0,921	47,5971	406,749357

Keterangan : Luas Membran $7,065 \text{ cm}^2$

LAMPIRAN J

TABEL UJI r

DEGREES OF FREEDOM (DF)	5 PERCENT	1 PERCENT	DEGREES OF FREEDOM (DF)	5 PERCENT	1 PERCENT
1	.997	1.000	24	.388	.496
2	.950	.990	25	.381	.487
3	.878	.959	26	.374	.478
4	.811	.917	27	.367	.470
5	.754	.874	28	.361	.463
6	.707	.834	29	.355	.456
7	.666	.798	30	.349	.449
8	.632	.765	35	.325	.418
9	.602	.735	40	.304	.393
10	.576	.708	48	.288	.372
11	.553	.684	50	.273	.354
12	.532	.661	60	.250	.325
13	.514	.641	70	.232	.302
14	.497	.623	80	.217	.283
15	.482	.606	90	.205	.267
16	.468	.590	100	.195	.254
17	.456	.575	125	.174	.228
18	.444	.561	150	.159	.208
19	.433	.549	200	.138	.181
20	.423	.537	300	.113	.148
21	.413	.526	400	.098	.128
22	.404	.515	500	.088	.115
23	.396	.505	1000	.062	.081

LAMPIRAN K

Tabel uji F

Basis pertama pada setiap pasangan baris adalah titik pada distribusi F untuk aras 0.05; baris kedua untuk aras 0.01.

		Derajat kebebasan untuk rataan kuadrat yang lebih besar																									
		1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞		
Derajat kebebasan untuk rataan kuadrat yang lebih kecil.	16	4.49 8.53	3.63 6.23	3.24 5.29	3.01 4.77	2.85 4.44	2.74 4.20	2.66 4.03	2.59 3.89	2.54 3.78	2.49 3.69	2.45 3.61	2.42 3.55	2.37 3.45	2.33 3.37	2.28 3.25	2.24 3.16	2.20 3.10	2.16 3.01	2.13 2.96	2.09 2.89	2.07 2.86	2.04 2.80	2.02 2.77	2.01 2.75		
	17	4.45 8.40	3.59 6.11	3.20 5.18	2.96 4.63	2.81 4.34	2.70 4.10	2.62 3.93	2.55 3.79	2.50 3.68	2.45 3.59	2.41 3.52	2.38 3.45	2.33 3.35	2.29 3.27	2.23 3.16	2.19 3.08	2.15 3.00	2.11 2.92	2.08 2.86	2.04 2.79	2.02 2.76	1.99 2.70	1.97 2.67	1.96 2.65		
	18	4.41 8.36	3.55 6.01	3.16 5.09	2.93 4.58	2.77 4.25	2.66 4.01	2.58 3.85	2.51 3.71	2.46 3.60	2.41 3.51	2.37 3.44	2.34 3.37	2.29 3.27	2.25 3.19	2.19 3.07	2.15 2.99	2.11 2.83	2.07 2.78	2.04 2.71	2.00 2.68	1.98 2.62	1.95 2.59	1.93 2.57			
	19	4.38 8.18	3.52 5.93	3.13 5.01	2.90 4.50	2.74 4.17	2.63 3.94	2.55 3.77	2.48 3.63	2.43 3.52	2.38 3.43	2.34 3.36	2.31 3.30	2.26 3.19	2.21 3.12	2.15 3.00	2.11 2.92	2.07 2.84	2.02 2.76	2.00 2.70	1.96 2.63	1.94 2.60	1.91 2.54	1.90 2.51	1.88 2.49		
	20	4.35 8.10	3.49 5.85	3.10 4.94	2.87 4.43	2.71 4.10	2.60 3.87	2.52 3.71	2.45 3.56	2.40 3.45	2.35 3.37	2.31 3.30	2.28 3.23	2.23 3.13	2.18 3.05	2.12 2.94	2.08 2.86	2.04 2.77	1.99 2.69	1.96 2.63	1.92 2.56	1.90 2.53	1.87 2.47	1.85 2.44	1.84 2.42		
	21	4.32 8.02	3.47 5.78	3.07 4.87	2.84 4.37	2.68 4.04	2.57 3.81	2.49 3.65	2.42 3.51	2.37 3.40	2.32 3.31	2.28 3.24	2.25 3.17	2.20 3.07	2.15 2.99	2.09 2.88	2.05 2.80	2.00 2.72	1.96 2.63	1.93 2.58	1.89 2.51	1.87 2.47	1.84 2.42	1.82 2.38	1.81 2.36		
	22	4.30 7.94	3.44 5.72	3.05 4.82	2.82 4.31	2.66 3.99	2.55 3.76	2.47 3.59	2.40 3.48	2.35 3.35	2.30 3.24	2.26 3.18	2.23 3.13	2.18 3.02	2.13 2.94	2.07 2.83	2.03 2.75	1.98 2.67	1.93 2.58	1.91 2.53	1.87 2.46	1.84 2.42	1.81 2.37	1.80 2.33	1.79 2.31		
	23	4.28 7.88	3.42 5.66	3.03 4.76	2.80 4.26	2.64 3.94	2.53 3.71	2.45 3.54	2.38 3.41	2.32 3.30	2.28 3.21	2.24 3.14	2.20 3.07	2.14 2.97	2.10 2.89	2.04 2.78	2.00 2.70	1.94 2.62	1.90 2.53	1.86 2.48	1.82 2.41	1.79 2.37	1.77 2.32	1.76 2.28	1.75 2.26		
	24	4.26 7.82	3.40 5.61	3.01 4.72	2.78 4.22	2.62 3.90	2.51 3.67	2.43 3.50	2.36 3.36	2.30 3.25	2.26 3.17	2.22 3.09	2.18 3.03	2.13 2.93	2.09 2.85	2.02 2.74	1.98 2.66	1.94 2.58	1.89 2.49	1.86 2.44	1.82 2.36	1.79 2.33	1.76 2.27	1.74 2.21	1.73 2.21		
	25	4.24 7.77	3.38 5.57	2.99 4.68	2.76 4.18	2.60 3.86	2.49 3.63	2.41 3.46	2.34 3.32	2.28 3.21	2.24 3.13	2.20 3.05	2.16 2.99	2.11 2.89	2.06 2.81	2.00 2.70	1.94 2.62	1.90 2.54	1.85 2.45	1.82 2.40	1.78 2.32	1.76 2.29	1.72 2.23	1.71 2.19	1.70 2.17		
	26	4.22 7.72	3.37 5.53	2.89 4.64	2.74 4.14	2.59 3.82	2.47 3.59	2.39 3.42	2.32 3.29	2.27 3.17	2.22 3.09	2.18 3.02	2.15 2.96	2.10 2.86	2.05 2.77	1.99 2.66	1.95 2.58	1.90 2.50	1.85 2.41	1.82 2.36	1.78 2.28	1.76 2.25	1.72 2.19	1.70 2.15	1.69 2.13		
	27	4.21 7.68	3.35 5.49	2.96 4.60	2.73 4.11	2.57 3.79	2.46 3.56	2.37 3.39	2.30 3.26	2.25 3.14	2.20 3.06	2.16 2.98	2.13 2.93	2.08 2.83	2.03 2.74	1.97 2.63	1.93 2.55	1.88 2.47	1.84 2.38	1.80 2.33	1.76 2.25	1.74 2.21	1.71 2.16	1.68 2.12	1.67 2.10		
	28	4.20 7.64	3.34 5.45	2.95 4.57	2.71 4.07	2.56 3.76	2.44 3.53	2.36 3.36	2.29 3.23	2.24 3.11	2.19 3.03	2.15 2.95	2.12 2.90	2.06 2.80	2.02 2.71	1.96 2.60	1.91 2.52	1.87 2.44	1.81 2.35	1.78 2.30	1.75 2.22	1.72 2.18	1.69 2.13	1.67 2.09	1.65 2.06		
	29	4.18 7.60	3.33 5.52	2.93 4.54	2.70 4.04	2.54 3.73	2.43 3.50	2.35 3.32	2.28 3.20	2.22 3.08	2.18 3.00	2.14 2.92	2.10 2.87	2.05 2.77	2.00 2.68	1.94 2.57	1.89 2.49	1.85 2.41	1.80 2.32	1.77 2.27	1.73 2.19	1.71 2.15	1.68 2.10	1.65 2.06	1.64 2.03		
	30	4.17 7.56	3.32 5.39	2.92 4.51	2.69 4.02	2.53 3.70	2.42 3.47	2.34 3.30	2.27 3.17	2.21 3.06	2.16 2.98	2.12 2.90	2.09 2.84	2.04 2.74	1.99 2.66	1.93 2.53	1.89 2.47	1.84 2.38	1.79 2.29	1.76 2.24	1.72 2.16	1.69 2.13	1.66 2.07	1.64 2.03	1.62 2.01		

(bersambung)

Tabel uji F (lanjutan)

Baris pertama pada setiap pasangan baris adalah titik pada distribusi F untuk aras 0.05; baris kedua untuk aras 0.01.

		Derajat kebebasan untuk rataan kuadrat yang lebih besar.																							
		1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞
Derajat kebebasan untuk rataan kuadrat yang lebih kecil.	32	4.15 7.50	3.30 5.34	2.90 4.46	2.67 3.97	2.51 3.66	2.40 3.42	2.32 3.25	2.25 3.12	2.19 3.01	2.14 2.94	2.10 2.86	2.07 2.80	2.02 2.70	1.97 2.62	1.91 2.51	1.86 2.42	1.82 2.34	1.76 2.25	1.74 2.20	1.69 2.12	1.67 2.08	1.64 2.02	1.61 1.98	1.59 1.96
	34	4.12 7.44	3.28 5.29	2.88 4.42	2.65 3.93	2.49 3.61	2.38 3.38	2.30 3.21	2.23 3.08	2.17 2.97	2.12 2.89	2.08 2.82	2.05 2.76	2.00 2.66	1.95 2.58	1.89 2.47	1.84 2.38	1.80 2.30	1.74 2.21	1.71 2.15	1.67 2.08	1.64 2.04	1.61 1.98	1.59 1.94	1.57 1.91
	36	4.11 7.39	3.26 5.25	2.86 4.38	2.63 3.89	2.48 3.58	2.36 3.35	2.28 3.18	2.21 3.04	2.15 2.94	2.10 2.86	2.06 2.78	2.03 2.72	1.99 2.62	1.93 2.54	1.87 2.43	1.82 2.35	1.78 2.26	1.72 2.17	1.69 2.12	1.65 2.04	1.62 2.00	1.59 1.94	1.56 1.90	1.55 1.87
	38	4.10 7.38	3.25 5.21	2.85 4.34	2.62 3.86	2.46 3.54	2.35 3.32	2.26 3.15	2.19 3.02	2.14 2.91	2.09 2.82	2.05 2.75	2.02 2.69	1.96 2.59	1.92 2.51	1.85 2.40	1.80 2.32	1.76 2.22	1.71 2.14	1.67 2.08	1.63 2.00	1.60 1.97	1.57 1.90	1.54 1.86	1.53 1.84
	40	4.08 7.31	3.23 5.18	2.84 4.31	2.61 3.83	2.45 3.51	2.34 3.29	2.25 3.12	2.18 2.99	2.12 2.88	2.07 2.80	2.04 2.73	2.00 2.66	1.95 2.56	1.90 2.49	1.84 2.37	1.79 2.29	1.74 2.20	1.69 2.11	1.66 2.05	1.61 1.97	1.59 1.94	1.55 1.88	1.53 1.84	1.51 1.81
	42	4.07 7.27	3.22 5.15	2.83 4.29	2.59 3.80	2.44 3.49	2.32 3.26	2.24 3.10	2.17 2.96	2.11 2.86	2.06 2.77	2.02 2.70	1.99 2.64	1.94 2.54	1.89 2.46	1.82 2.35	1.78 2.26	1.73 2.17	1.68 2.08	1.64 2.02	1.60 1.94	1.57 1.91	1.54 1.85	1.51 1.80	1.49 1.78
	44	4.06 7.24	3.21 5.12	2.82 4.26	2.58 3.78	2.43 3.46	2.31 3.24	2.23 3.07	2.16 2.94	2.10 2.84	2.05 2.75	2.01 2.68	1.96 2.62	1.92 2.52	1.88 2.44	1.81 2.32	1.76 2.24	1.72 2.15	1.66 2.06	1.63 2.09	1.58 1.92	1.56 1.88	1.52 1.82	1.50 1.78	1.48 1.75
	46	4.05 7.21	3.20 5.10	2.81 4.24	2.57 3.76	2.42 3.44	2.30 3.22	2.22 3.05	2.14 2.92	2.09 2.82	2.04 2.73	2.00 2.66	1.97 2.60	1.91 2.50	1.87 2.42	1.80 2.30	1.75 2.22	1.71 2.13	1.65 2.04	1.62 1.98	1.57 1.90	1.54 1.86	1.51 1.80	1.48 1.76	1.46 1.72
	48	4.04 7.19	3.19 5.08	2.80 4.22	2.56 3.74	2.41 3.42	2.30 3.20	2.21 3.04	2.14 2.90	2.08 2.80	2.03 2.71	1.99 2.64	1.96 2.58	1.90 2.48	1.86 2.40	1.79 2.28	1.74 2.20	1.70 2.11	1.64 2.02	1.61 1.96	1.56 1.88	1.53 1.84	1.50 1.78	1.47 1.73	1.45 1.70
	50	4.03 7.17	3.18 5.06	2.79 4.20	2.56 3.72	2.40 3.41	2.29 3.18	2.20 3.02	2.13 2.88	2.07 2.78	2.02 2.70	1.98 2.62	1.95 2.56	1.90 2.46	1.85 2.39	1.78 2.26	1.74 2.18	1.69 2.10	1.63 2.00	1.60 1.94	1.55 1.86	1.52 1.82	1.48 1.76	1.46 1.71	1.44 1.68
	55	4.02 7.12	3.17 5.01	2.78 4.16	2.54 3.68	2.38 3.37	2.27 3.15	2.18 2.98	2.11 2.85	2.05 2.75	2.00 2.66	1.97 2.59	1.93 2.53	1.88 2.43	1.83 2.35	1.76 2.23	1.72 2.15	1.67 2.06	1.61 1.96	1.58 1.90	1.52 1.82	1.46 1.78	1.43 1.71	1.41 1.66	1.41 1.64
	60	4.00 7.08	3.15 4.98	2.76 4.13	2.52 3.65	2.37 3.34	2.25 3.12	2.17 2.95	2.10 2.82	2.04 2.72	1.99 2.63	1.95 2.56	1.92 2.50	1.86 2.40	1.81 2.32	1.75 2.20	1.70 2.12	1.65 2.03	1.59 1.93	1.56 1.87	1.50 1.79	1.46 1.74	1.44 1.68	1.41 1.63	1.39 1.60
	65	3.99 7.04	3.14 4.93	2.75 4.10	2.51 3.62	2.36 3.31	2.24 3.09	2.15 2.93	2.08 2.79	2.02 2.70	1.98 2.61	1.94 2.54	1.90 2.47	1.85 2.37	1.80 2.27	1.73 2.20	1.68 2.09	1.63 2.00	1.57 1.90	1.54 1.78	1.49 1.71	1.46 1.64	1.42 1.61	1.39 1.60	1.37 1.56
	70	3.98 7.01	3.13 4.92	2.74 4.08	2.50 3.60	2.35 3.29	2.22 3.07	2.14 2.91	2.07 2.77	2.01 2.72	1.97 2.59	1.93 2.51	1.89 2.45	1.84 2.35	1.79 2.25	1.72 2.15	1.67 2.07	1.62 1.98	1.56 1.88	1.53 1.82	1.47 1.74	1.45 1.69	1.40 1.62	1.37 1.56	1.35 1.53
	80	3.96 6.96	3.11 4.88	2.72 4.04	2.48 3.56	2.33 3.25	2.21 3.04	2.12 2.87	2.05 2.74	1.99 2.64	1.95 2.55	1.91 2.48	1.87 2.41	1.82 2.32	1.77 2.24	1.70 2.11	1.65 2.03	1.60 1.94	1.54 1.84	1.51 1.78	1.45 1.70	1.43 1.65	1.38 1.57	1.35 1.52	1.32 1.49

Sumber: Scheffier (1987).

LAMPIRAN L

kimia farma

Plant Jakarta

Jl. Rawagelam V No.1 Kawasan Industri Pulogadung
Telp. +62 21 4609354, 4603144 Fax. + 62 21 4603143
e.mail : dpy@chn.net.id
Jakarta Timur 13930

No.Pemeriksaan : 80977/BB/08/02
Tgl.Permohonan : 14 Mei 2010
Tgl.Pemeriksaan : 03 Juni 2010
C.A : Ada

07 JUN 2010

Periksa laporan HPL No : 80977/BB/08 - 01

HASIL PEMERIKSAAN BAHAN BAKU

NAMA BAHAN BAKU	: PROPRANOLOL HCL (1000302)	TGL.PEMBUATAN	: Mei 2008
	: PROPRANOLOL HCL	DALUARSA	: Mei 2013
MEREEK/PRODUSEN	: Societa Italiana Medicine Scandicci Italy	PEMASOK	: PT.Menjangnan Sakti
JUMLAH KEMASAN	: 7 drum @ 25 kg = 175 kg	No.BATCH	: 28.051
JUMLAH / CONTOH	: 4 x 10 g (1 - 4)		

Pemeriksaan	Hasil	Syarat	Metode
Pemerian	1 - 4 = Serbuk kristal halus berwarna putih	Serbuk berwarna putih atau hampir putih	BP. 2003
Identifikasi	1 - 4 = Benar	-	BP. 2003
Kejernihan dan warna larutan (2 gram dalam 20 ml Methanol)	Memenuhi Pengujian	-	MPK0007
Susut pengeringan (10° konstan)	0,01%	Max.0,5 %	BP. 2003
Kadar	99,74%	-	BP. 2003
Kadar terhadap zat pengering	99,75%	99,0 % - 101,0 %	BP. 2003

Kesimpulan : **DILULUSKAN/DITOLAK**
Catatan : **Bagian Pengudangan**
Diperiksa ulang
Tgl.

Puri

Apoteker Penanggung Jawab PM

Dra. Tia Mutiainingsih

Jakarta,
Asman Pengawasan Mutu

Drs. Hadi Kardoko