DAFTAR PUSTAKA

Alkilani, A. Z., McCrudden, M. T. C., & Donnelly, R. F. 2015. Transdermal drug delivery: Innovative pharmaceutical developments based on disruption of the barrier properties of the stratum corneum. *Pharmaceutics*.7(4): 438–470. doi: https://doi.org/10.3390/pharmaceutics7040438

Álvarez, L. A., Van de Sijpe, G., Desmet, S., Metsemakers, W. J., Spriet, I., Allegaert, K., & Rozenski, J. 2022. Ways to Improve Insights into Clindamycin Pharmacology and Pharmacokinetics Tailored to Practice. *Antibiotics*.11(5). doi: https://doi.org/10.3390/antibiotics11050701

Anjani, Q. K., Permana, A. D., Cárcamo-Martínez, Á., Domínguez-Robles, J., Tekko, I. A., Larrañeta, E., Vora, L. K., Ramadon, D., & Donnelly, R. F. 2021. Versatility of hydrogel-forming microneedles in in vitro transdermal delivery of tuberculosis drugs. *European Journal of Pharmaceutics and Biopharmaceutics*.158: 294 – 312. doi: https://doi.org/10.1016/j.ejpb.2020.12.003

Cano, A., Ettcheto, M., Espina, M., López-Machado, A., Cajal, Y., Rabanal, F., Sánchez-López, E., Camins, A., García, M. L., & Souto, E. B. 2020. State-of-the-art polymeric nanoparticles as promising therapeutic tools against human bacterial infections. *Journal of Nanobiotechnology*.18 (1). doi: https://doi.org/10.1186/s12951-020-00714-2

Hasan, N., Cao, J., Lee, J., Hlaing, S. P., Oshi, M. A., Naeem, M., Ki, M. H., Lee, B. L., Jung, Y., & Yoo, J. W. 2019. Bacteria-targeted clindamycin loaded polymeric nanoparticles: Effect of surface charge on nanoparticle adhesion to MRSA, antibacterial activity, and wound healing. *Pharmaceutics*. 11(5). doi: https://doi.org/10.3390/pharmaceutics11050236

Hung, S. Y., Chiu, C. H., Huang, C. H., Lin, C. W., Yeh, J. T., Yang, H. M., & Huang, Y. Y. 2022. Impact of wound microbiology on limb preservation in patients with diabetic foot infection. *Journal of Diabetes Investigation.* 13(2): 336–343. doi: https://doi.org/10.1111/jdi.13649

International Diabetes Federation. 2021. Five Question on the IDF Diabetes Atlas. Diabetes Research and Clinical Practice.102*:*147–148.

Jung, J. H., & Jin, S. G. 2021. Microneedle for transdermal drug delivery: current trends and fabrication. *Journal of Pharmaceutical Investigation.* 51(5): 503–517. doi: https://doi.org/10.1007/s40005-021-00512-4

Kang, N. W., Kim, S., Lee, J. Y., Kim, K. T., Choi, Y., Oh, Y., Kim, J., Kim, D. D., & Park, J. H. 2021. Microneedles for drug delivery: recent advances in materials and geometry for preclinical and clinical studies. *Expert Opinion on Drug Delivery.* 18 (7): 929–947. doi: /10.1080/17425247.2021.1828860

Trevor, A. J. 2016. *Basic and Clinical Pharmacology.* 13th ed. w-Hill Inc.

Z. A. A. , K. R. , dan S. A. 2023. *Prevalence of diabetes in ew of IDF Diabetes Atlas 10th edition*. Bentham Science i:https://doi.org/10.2174/1573399819666230413094200

Kurakula, M., & Rao, G. S. N. K. 2020. Pharmaceutical assessment of polyvinylpyrrolidone (PVP): As excipient from conventional to controlled delivery systems with a spotlight on COVID-19 inhibition. In *Journal of Drug Delivery Science and Technology* (60). doi: https://doi.org/10.1016/j.jddst.2020.102046

Kwon, K. T., & Armstrong, D. G. 2018. Microbiology and antimicrobial therapy for diabetic foot infections. In *Infection and Chemotherapy*. 50(1): 11–20. Korean Society of Infectious Diseases, Korean Society for Chemotherapy. doi:https://doi.org/10.3947/ic.2018.50.1.11

Larrañeta, E., Moore, J., Vicente-Pérez, E. M., González-Vázquez, P., Lutton, R., Woolfson, A. D., & Donnelly, R. F. 2014. A proposed model membrane and test method for microneedle insertion studies. *International Journal of Pharmaceutics*. 472(1–2): 65–73. doi: https://doi.org/10.1016/j.ijpharm.2014.05.042

Li, W., Tang, J., Terry, R. N., Li, S., Brunie, A., Callahan, R. L., Noel, R. K., Rodríguez, C. A., Schwendeman, S. P., & Prausnitz, M. R. 2019. Long-acting reversible contraception by effervescent microneedle patch. *Sci. Adv* 5. doi: http://advances.sciencemag.org/

Lipsky, B. A., Senneville, E., Abbas, Z. G., Aragon_Sanchez, J., Diggle, M., Embil, J. M., Kono, S., Lavery, L. A., Malone, M., Van Asten, S. A., Urbancic-Rovan, V., & Peters, E. J. G. 2019. *IWGDF Guideline on the diagnosis and treatment of foot infection in persons with diabetes*. www.iwgdfguidelines.org

Liu, T., Jiang, G., Song, G., Sun, Y., Zhang, X., & Zeng, Z. 2021. Fabrication of Rapidly Separable Microneedles for Transdermal Delivery of Metformin on Diabetic Rats. *Journal of Pharmaceutical Sciences*. 110(8): 3004–3010. doi:https://doi.org/10.1016/j.xphs.2021.04.009

Macdonald, K. E., Boeckh, S., Stacey, H. J., & Jones, J. D. 2021. The microbiology of diabetic foot infections: a meta-analysis. *BMC Infectious Diseases*. 21(1). doi: https://doi.org/10.1186/s12879-021-06516-7

Maqbool, I., Noreen, S., Pervaiz, F., Ijaz, M., & Farooq, I. 2019. Micro Particles: A Review of Recent Developments, Microencapsulation Method, and Therapeutic Strategies. *Global Pharmaceutical Sciences Review*. 4(1): 28–39. doi:https://doi.org/10.31703/gpsr.2019(iv-i).04

Mudjahid, M., Nainu, F., Utami, R. N., Sam, A., Marzaman, A. N. F., Roska, T. P., Asri, R. M., Himawan, A., Donnelly, R. F., & Permana, A. D. 2022. Enhancement in Site-Specific Delivery of Chloramphenicol Using Bacterially Sensitive Microparticle Loaded into Dissolving Microneedle: Potential for Enhanced Effectiveness Treatment of Cellulitis. *ACS Applied* [illegible] *Interfaces*. doi:https://doi.org/10.1021/acsami.2c16857

[illegible]. G., and L. J. K. 2022. *Clindamycin*. Treasure Island: Stat [illegible]ing.

[illegible]lim, D., Sya'ban Mahfud, M. A., Fitri Sultan, N. A., Saputra, [illegible]N., Friandini, R. A., Natsir Djide, N. J., & Permana, A. D. [illegible]eric hydrogel forming microneedle-mediated transdermal [illegible]denafil citrate from direct-compressed tablet reservoir for

potential improvement of pulmonary hypertension therapy. *International Journal of Pharmaceutics.* 631. doi: https://doi.org/10.1016/j.ijpharm.2022.122549

Pavlović, N., Bogićević, I. A., Zaklan, D., Đanić, M., Goločorbin-Kon, S., Al-Salami, H., & Mikov, M. 2022. Influence of Bile Acids in Hydrogel Pharmaceutical Formulations on Dissolution Rate and Permeation of Clindamycin Hydrochloride. *Gels.* 8(1). doi: https://doi.org/10.3390/gels8010035

Permana, A. D., Anjani, Q. K., Sartini, Utomo, E., Volpe-Zanutto, F., Paredes, A. J., Evary, Y. M., Mardikasari, S. A., Pratama, M. R., Tuany, I. N., & Donnelly, R. F. 2021a. Selective delivery of silver nanoparticles for improved treatment of biofilm skin infection using bacteria-responsive microparticles loaded into dissolving microneedles. *Materials Science and Engineering C*. 120. doi:https://doi.org/10.1016/j.msec.2020.111786

Pünnel, L. C., & Lunter, D. J. 2021. Film-forming systems for dermal drug delivery. *Pharmaceutics*. 13(7). MDPI. doi: https://doi.org/10.3390/pharmaceutics13070932

Ramirez-Acuña, J. M., Cardenas-Cadena, S. A., Marquez-Salas, P. A., Garza-Veloz, I., Perez-Favila, A., Cid-Baez, M. A., Flores-Morales, V., & Martinez-Fierro, M. L. (2019). Diabetic foot ulcers: Current advances in antimicrobial therapies and emerging treatments. *Antibiotics*. 8(4). doi: https://doi.org/10.3390/antibiotics8040193

Rowe, R. C., Sheshey, P. J., & Quinn, M. E. 2009. *Handbook of Pharmaceutical Excipients* (6th ed.). Pharmaceutical Press and American Pharmacists Assosiation.

Syafika, N., Azis, S. B. A., Enggi, C. K., Qonita, H. A., Mahmud, T. R. A., Abizart, A., Asri, R. M., & Permana, A. D. 2023. Glucose-Responsive Microparticle-Loaded Dissolving Microneedles for Selective Delivery of Metformin: A Proof-of-Concept Study. *Molecular Pharmaceutics*. 20(2): 1269–1284. doi: https://doi.org/10.1021/acs.molpharmaceut.2c00936

Tekko, I. A., Chen, G., Domínguez-Robles, J., Thakur, R. R. S., Hamdan, I. M. N., Vora, L., Larrañeta, E., McElnay, J. C., McCarthy, H. O., Rooney, M., & Donnelly, R. F. 2020. Development and characterisation of novel poly (vinyl alcohol)/poly (vinyl pyrrolidone)-based hydrogel-forming microneedle arrays for enhanced and sustained transdermal delivery of methotrexate. *International Journal of Pharmaceutics.* 586. doi: https://doi.org/10.1016/j.ijpharm.2020.119580

Teodorescu, M., Bercea, M., & Morariu, S. 2019. Biomaterials of PVA and PVP in medical and pharmaceutical applications: Perspectives and challenges. *hnology Advances*. 37(1): 109–131. doi: /10.1016/j.biotechadv.2018.11.008

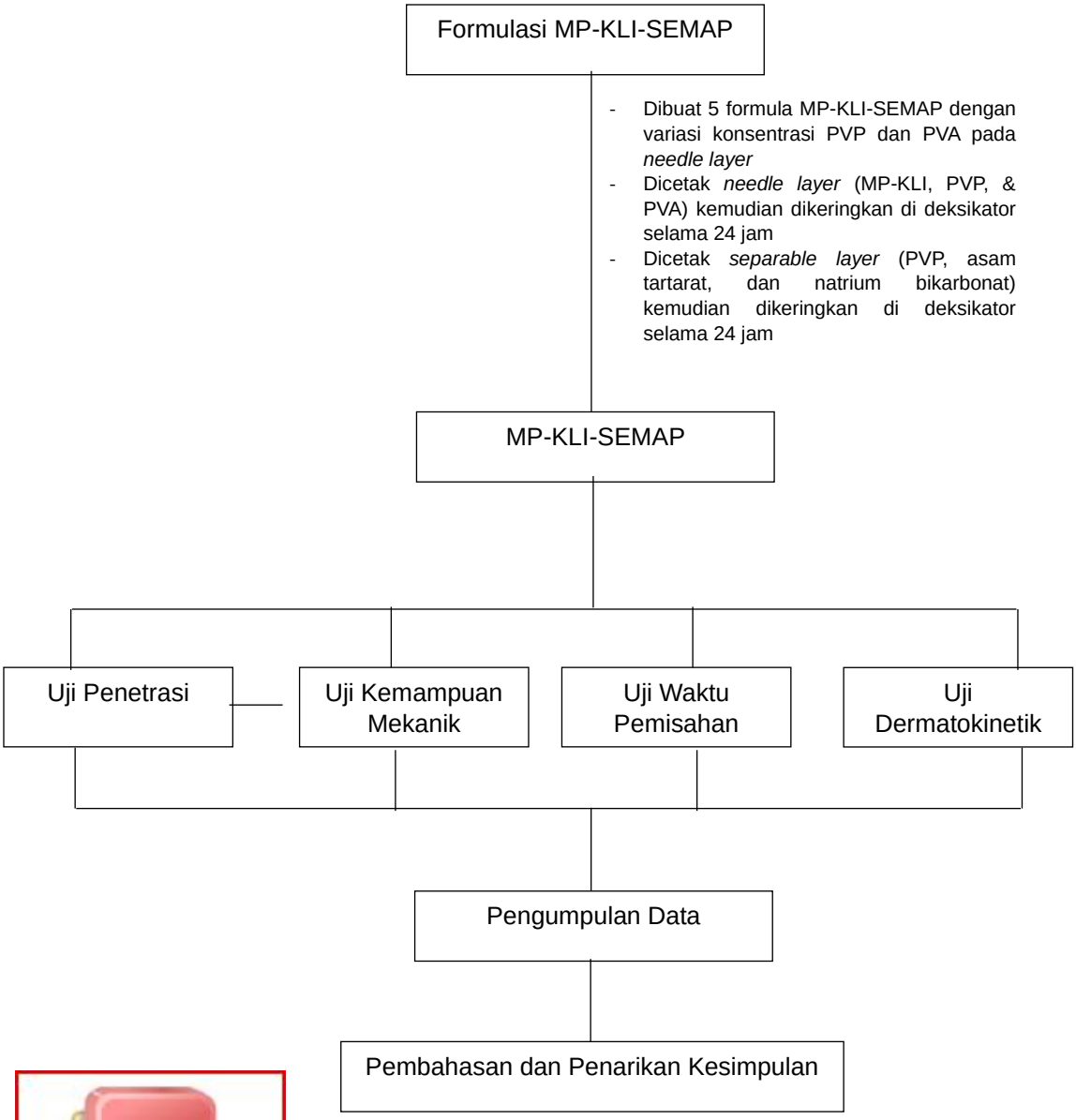
vi, G., Dubey, S. K., Pandey, M. M., Gupta, G., Singh, M., & Microneedles: A smart approach and increasing potential for rug delivery system. In *Biomedicine and Pharmacotherapy*. 49–1258. Elsevier Masson SAS. doi: /10.1016/j.biopha.2018.10.078

Webber, S. 2013. International Diabetes Federation. *Diabetes Research and Clinical Practice*. 102(2): 147–148. doi: https://doi.org/10.1016/j.diabres.2013.10.013

Yang, P., Lu, C., Qin, W., Chen, M., Quan, G., Liu, H., Wang, L., Bai, X., Pan, X., & Wu, C. (2020). Construction of a core-shell microneedle system to achieve targeted co-delivery of checkpoint inhibitors for melanoma immunotherapy. *Acta Biomaterialia*. 104: 147–157. doi: https://doi.org/10.1016/j.actbio.2019.12.037

LAMPIRAN

Lampiran 1. Skema Kerja



Lampiran 2. Hasil uji morfologi, dan kekuatan mekanik MP-KLI-SEMAP

Tabel 4. Hasil uji kekuatan mekanik

Formula	Sebelum Uji Kekuatan Mekanik (Uji morfologi)		Setelah Uji Kekuatan Mekanik		% Penurunan tinggi jarum	Rata-rata ± SD
	Panjang (µm)	Rata-rata ± SD	Panjang (µm)	Rata-rata ± SD		
F1	707 701 702	703,33 ± 3,21	540 547 525	537,33 ± 11,23	23,62 21,97 25.21	23, 60 ± 1,62
F2	705 704 701	703,33 ± 2,08	674 650 684	669,33 ± 17,47	4,40 7,67 2,43	4,83 ± 2,65
F3	704 699 702	701,67 ± 2,52	687 660 648	665 ±19,97	2,414 5,58 7,70	5,22 ± 2,65
F4	707 701 706	704,67 ± 3,21	620 630 632	627,33 ± 6,42	12,31 10,13 10,48	10,97 ± 1,16
F5	702 706 706	706,67 ± 2,31	519 510 504	511 ±7,55	26,07 27,76 28,62	27,48 ± 1,29

Lampiran 3. Hasil uji kemampuan penetrasi MP-KLI-SEMAP

Tabel 5. Hasil uji kemampuan penetrasi

Lapi-	Jumlah lubang yang terbentuk					%penetrasi				
san	F1	F2	F3	F4	F5	F1	F2	F3	F4	F5
1	100	100	100	100	100	100	100	100	100	100
2	65	100	100	80	77	65	100	100	80	77
3	34	97	72	65	28	33,67	96,67	72	65,33	28
4	0	82	14	0	0	0	81,67	14,33	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0

Perhitungan:

a. Contoh perhitungan presentase penurunan tinggi jarum

Diketahui untuk F1 replikasi pertama, tinggi *microneedle* sebelum dilakukan uji kekuatan mekanik adalah 707 µm dan setelah dilakukan uji kekuatan mekanik tingginya menjadi 540 µm, maka :

$$\text{Pengurangan ketinggian jarum} = \frac{\text{Tinggi sebelum uji - Tinggi setelah uji}}{\text{Tinggi sebelum uji}} \times 100\%$$

$$= \frac{707 - 540}{707} \times 100\%$$

$$= 23{,}62\%$$

b. Contoh perhitungan presentase pentrasi lapisan ke-n

Diketahui untuk F1 lapisan ke-3 terbentuk 34 lubang dari 100 *needle*, maka

$$\text{Jumlah lubang dalam parafilm} = \frac{\text{Jumlah lubang yang diamati}}{\text{Jumlah lubang keseluruhan}} \times 100\%$$

$$= \frac{34}{100} \times 100\%$$

$$= 34\%$$

Lampiran 4. Hasil uji waktu pemisahan

Tabel 6. Uji waktu pemisahan MP-KLI-SEMAP

Formula	Replikasi			Rata-rata ± SD
	1 (detik)	2 (detik)	3 (detik)	
F1	59	53	62	58 ± 4,58
F2	54	63	51	56 ± 5,1
F3	55	58	60	57,67 ± 2,52
F4	58	57	59	58 ± 0,82
F5	61	59	52	57 ±4,73

Lampiran 5. Hasil Uji dematokinetik secara *ex vivo* pada kulit normal

Tabel 7. Hasil uji dermatokinetik Krim-KLI

Waktu	Absorbsi	Konsentrasi mikrogram /mL	Volume	Faktor pengenceran	Jumlah KLI dalam kulit	Mikrogram/ cm^2	Rata-rata	SD
	0	0	2	2	0	0		
1	0	0	2	2	0	0	0	0
	0	0	2	2	0	0		
	0	0	2	2	0	0		
2	0	0	2	2	0	0	0	0
	0	0	2	2	0	0		
	0	0	2	2	0	0		
3	0	0	2	2	0	0	0	0
	0	0	2	2	0	0		
	0.0205	0.79	2	2	3.16	1.96	1.74	0.26
4	0.019	0.73	2	2	2.91	1.80		
	0.0155	0.58	2	2	2.33	1.45		
	0.031	1.22	2	2	4.89	3.04	3.53	0.51
5	0.041	1.64	2	2	6.55	4.06		
	0.0355	1.41	2	2	5.64	3.50		
	0.021	0.81	2	2	3.24	2.01	2.28	0.24
6	0.0245	0.95	2	2	3.82	2.37		
	.0255	1.00	2	2	3.98	2.47		
	.0205	0.79	2	2	3.16	1.96	1.87	0.08
	.0195	0.75	2	2	2.99	1.86		
	.019	0.73	2	2	2.91	1.80		
	.0155	0.58	2	2	2.33	1.45	1.62	0.18
	.019	0.73	2	2	2.91	1.80		
	.017	0.64	2	2	2.58	1.60		

Tabel 8. Hasil uji dermatokinetik Krim MP-KLI

Waktu	Absorbsi	Konsentrasi mikrogram /mL	Volume	Faktor pengenceran	Jumlah KLI dalam kulit	Mikrogram/ cm^2	Rata-rata	SD
	0	0	2	2	0	0		
1	0	0	2	2	0	0	0	0
	0	0	2	2	0	0		
	0	0	2	2	0	0		
2	0	0	2	2	0	0	0	0
	0	0	2	2	0	0		
	0	0	2	2	0	0		
3	0	0	2	2	0	0	0	0
	0	0	2	2	0	0		
	0.0205	0.016	0.60	2	2	2.41		
4	0.019	0.0215	0.83	2	2	3.32	1.96	0.42
	0.0155	0.024	0.93	2	2	3.74		
	0.031	0.027	1.06	2	2	4.23		
5	0.041	0.0295	1.16	2	2	4.64	2.93	0.34
	0.0355	0.0335	1.33	2	2	5.31		
	0.021	0.0395	1.57	2	2	6.30		
6	0.0245	0.041	1.64	2	2	6.55	4.16	0.32
	0.0255	0.0455	1.82	2	2	7.29		
	0.0205	0.0215	0.83	2	2	3.32		
7	0.0195	0.021	0.81	2	2	3.24	1.98	0.11
	.019	0.0195	0.75	2	2	2.99		
	0155	0.0195	0.75	2	2	2.99		
8	.019	0.0185	0.71	2	2	2.83	1.65	0.27
	.017	0.0145	0.54	2	2	2.17		

Tabel 9. Hasil uji dermatokinetik KLI-SEMAP pada kulit normal

Waktu	Absorbsi	Konsentrasi mikrogram /mL	Volume	Faktor pengenceran	Jumlah KLI dalam kulit	Mikrogram/ cm^2	Rata-rata	SD
	0.117	4.78	2	2	19.11	11.85		
1	0.1595	6.53	2	2	26.13	16.21	14.21	2.20
	0.1435	5.87	2	2	23.49	14.57		
	0.3815	15.71	2	2	62.83	38.98		
2	0.4005	16.49	2	2	65.97	40.92	40.22	1.08
	0.399	16.43	2	2	65.72	40.77		
	0.2715	11.16	2	2	44.64	27.70		
3	0.2015	8.27	2	2	33.07	20.52	24.35	3.61
	0.2435	10.00	2	2	40.02	24.83		
	0.1295	5.29	2	2	21.17	13.14		
4	0.1405	5.75	2	2	22.99	14.26	13.68	0.56
	0.1345	5.50	2	2	22.00	13.65		
	0.051	2.05	2	2	8.20	5.09	6.18	1.05
5	0.0715	2.90	2	2	11.59	7.19		
	0.0625	2.52	2	2	10.10	6.27		
	0.046	1.84	2	2	7.37	4.57	4.51	0.16
6	0.0465	1.86	2	2	7.45	4.62		
	0.0435	1.74	2	2	6.96	4.32		
	0.0195	0.75	2	2	2.99	1.86		
7	0.0265	1.04	2	2	4.15	2.57	2.25	0.36
	0.024	0.93	2	2	3.74	2.32		
	0.0215	0.83	2	2	3.32	2.06	2.08	0.28
	0.0245	0.95	2	2	3.82	2.37		
	0.019	0.73	2	2	2.91	1.80		

Tabel 10. Hasil uji dermatokinetik MP-KLI-SEMAP pada kulit normal

Waktu	Absorbsi	Konsentrasi mikrogram /mL	Volume	Faktor pengenceran	Jumlah KLI dalam kulit	Mikrogram/ cm^2	Rata-rata	SD
	0	0	2	2	0	0		
1	0	0	2	2	0	0	0	0
	0	0	2	2	0	0		
	0	0	2	2	0	0		
2	0	0	2	2	0	0	0	0
	0	0	2	2	0	0		
	0	0	2	2	0	0		
3	0	0	2	2	0	0	0	0
	0	0	2	2	0	0		
	0	0	2	2	0	0		
4	0	0	2	2	0	0	0	0
	0	0	2	2	0	0		
	0.031	1.22	2	2	4.89	3.04	3.24	0.44
5	0.029	1.14	2	2	4.56	2.83		
	0.039	1.55	2	2	6.21	3.86		
	0.035	1.39	2	2	5.55	3.45	3.51	0.17
6	0.038	1.51	2	2	6.05	3.75		
	0.034	1.35	2	2	5.39	3.34		
	0.043	1.72	2	2	6.88	4.27	3.89	0.29
	[illegible]39	1.55	2	2	6.21	3.86		
	[illegible]36	1.43	2	2	5.72	3.55		
	[illegible]36	1.43	2	2	5.72	3.55	3.65	0.08
	[illegible]37	1.47	2	2	5.88	3.65		
	[illegible]38	1.51	2	2	6.05	3.75		

Lampiran 6. Hasil uji dematokinetik secara *ex vivo* pada model kulit terinfeksi

Tabel 11. Hasil uji dermatokinetik Krim KLI pada model kulit terinfeksi

Waktu	Absorbsi	Konsentrasi mikrogram /mL	Volume	Faktor pengenceran	Jumlah KLI dalam kulit	Mikrogram/ cm^2	Rata-rata	SD
	0	0	2	2	0	0		
1	0	0	2	2	0	0	0	0
	0	0	2	2	0	0		
	0	0	2	2	0	0		
2	0	0	2	2	0	0	0	0
	0	0	2	2	0	0		
	0	0	2	2	0	0		
3	0	0	2	2	0	0	0	0
	0	0	2	2	0	0		
	0.027	4.14	2	2	16.55	10.26	10.37	0.42
4	0.0245	4.36	2	2	17.45	10.83		
	0.016	4.03	2	2	16.13	10.01		
	0.039	9.32	2	2	37.29	23.13	21.48	1.49
5	0.0405	8.17	2	2	32.66	20.26		
	0.0315	8.48	2	2	33.9	21.03		
	0.022	15.29	2	2	61.17	37.95	39.64	1.54
6	0.0195	16.51	2	2	66.05	40.98		
	[illegible]65	16.12	2	2	64.48	40		
	[illegible]95	11.99	2	2	47.95	29.75	27.24	2.46
	[illegible]22	10	2	2	40.02	24.83		
	[illegible]15	10.93	2	2	43.74	27.13		
	[illegible]65	9.92	2	2	39.69	24.62	24.11	0.57
	[illegible]2	9.47	2	2	37.87	23.49		
	[illegible]55	9.76	2	2	39.02	24.21		

Tabel 12. Hasil uji dermatokinetik Krim MP-KLI pada model kulit terinfeksi

Waktu	Absorbsi	Konsentrasi mikrogram /mL	Volume	Faktor pengenceran	Jumlah KLI dalam kulit	Mikrogram/ cm^2	Rata-rata	SD
	0	0	2	2	0	0		
1	0	0	2	2	0	0	0	0
	0	0	2	2	0	0		
	0	0	2	2	0	0		
2	0	0	2	2	0	0	0	0
	0	0	2	2	0	0		
	0	0	2	2	0	0		
3	0	0	2	2	0	0	0	0
	0	0	2	2	0	0		
	0.016	4.14	2	2	16.55	10.26		
4	0.0215	4.36	2	2	17.45	10.83	10.37	0.42
	0.024	4.03	2	2	16.13	10.01		
	0.027	9.32	2	2	37.29	23.13		
5	0.0295	8.17	2	2	32.66	20.26	21.48	1.49
	0.0335	8.48	2	2	33.9	21.03		
	0.0395	15.29	2	2	61.17	37.95		
6	0.041	16.51	2	2	66.05	40.98	39.64	1.54
	0.0455	16.12	2	2	64.48	40		
	0.0215	11.99	2	2	47.95	29.75		
	021	10	2	2	40.02	24.83	27.24	2.46
	195	10.93	2	2	43.74	27.13		
	195	9.92	2	2	39.69	24.62		
	185	9.47	2	2	37.87	23.49	24.11	0.57
	145	9.76	2	2	39.02	24.21		

Tabel 13. Hasil uji dermatokinetik KLI-SEMAP pada model kulit terinfeksi

Waktu	Absorbsi	Konsentrasi mikrogram /mL	Volume	Faktor pengenceran	Jumlah KLI dalam kulit	Mikrogram/ cm^2	Rata-rata	SD
	0.1255	0.6	2	2	2.41	1.5		
1	0.149	0.54	2	2	2.17	1.34	1.57	0.26
	0.1505	0.75	2	2	2.99	1.86		
	0.4055	1.29	2	2	5.14	3.19		
2	0.3715	1.74	2	2	6.96	4.32	3.75	0.56
	0.391	1.51	2	2	6.05	3.75		
	0.216	2.71	2	2	10.84	6.73		
3	0.251	3.29	2	2	13.16	8.16	7.51	0.73
	0.2435	3.08	2	2	12.33	7.65		
	0.1325	4.14	2	2	16.55	10.26		
4	0.1215	4.36	2	2	17.45	10.83	10.37	0.42
	0.1155	4.03	2	2	16.13	10.01		
	0.0565	9.32	2	2	37.29	23.13		
5	0.067	8.17	2	2	32.66	20.26	21.48	1.49
	0.0725	8.48	2	2	33.9	21.03		
	0.0545	15.29	2	2	61.17	37.95		
6	0.0465	16.51	2	2	66.05	40.98	39.64	1.54
	0.0505	16.12	2	2	64.48	40		
	0.021	11.99	2	2	47.95	29.75		
7	[illegible]15	10	2	2	40.02	24.83	27.24	2.46
	[illegible]9	10.93	2	2	43.74	27.13		
	[illegible]05	9.92	2	2	39.69	24.62		
8	[illegible]45	9.47	2	2	37.87	23.49	24.11	0.57
	[illegible]85	9.76	2	2	39.02	24.21		

Tabel 14. Hasil uji dermatokinetik MP-KLI-SEMAP pada model kulit terinfeksi bakteri

Waktu	Absorbsi	Konsentrasi mikrogram /mL	Volume	Faktor pengenceran	Jumlah KLI dalam kulit	Mikrogram/ cm^2	Rata-rata	SD
	0.016	0.60	2	2	2.41	1.50		
1	0.0145	0.54	2	2	2.17	1.34	1.57	0.26
	0.0195	0.75	2	2	2.99	1.86		
	0.0325	1.29	2	2	5.14	3.19		
2	0.0435	1.74	2	2	6.96	4.32	3.75	0.56
	0.038	1.51	2	2	6.05	3.75		
	0.067	2.71	2	2	10.84	6.73		
3	0.081	3.29	2	2	13.16	8.16	7.51	0.73
	0.076	3.08	2	2	12.33	7.65		
	0.1015	4.14	2	2	16.55	10.26		
4	0.107	4.36	2	2	17.45	10.83	10.37	0.42
	0.099	4.03	2	2	16.13	10.01		
	0.227	9.32	2	2	37.29	23.13		
5	0.199	8.17	2	2	32.66	20.26	21.48	1.49
	0.2065	8.48	2	2	33.90	21.03		
	0.3715	15.29	2	2	61.17	37.95	39.64	1.54
6	0.401	16.51	2	2	66.05	40.98		
	0.3915	16.12	2	2	64.48	40.00		
	0.2915	11.99	2	2	47.95	29.75	27.24	2.46
	[illegible]35	10.00	2	2	40.02	24.83		
	[illegible]66	10.93	2	2	43.74	27.13		
	[illegible]15	9.92	2	2	39.69	24.62	24.11	0.57
	[illegible]05	9.47	2	2	37.87	23.49		
	[illegible]75	9.76	2	2	39.02	24.21		

Lampiran 7. Data Statistik

Lampiran 7.1. Uji Kekuatan Mekanik

Tests of Normality							
	Formula	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Uji mekanik	F1	.176	3	.	1.000	3	.976
	F2	.232	3	.	.980	3	.727
	F3	.219	3	.	.987	3	.784
	F4	.328	3	.	.870	3	.295
	F5	.253	3	.	.964	3	.637
a. Lilliefors Significance Correction							

ANOVA					
Uji mekanik					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1329.672	4	332.418	84.003	.000
Within Groups	39.572	10	3.957		
Total	1369.244	14			

Multiple Comparisons							
Dependent Variable: uji mekanik							
	(I) formula	(J) formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	F1	F2	18.77000*	1.62423	.000	13.4245	24.1155
		F3	18.37333*	1.62423	.000	13.0279	23.7188
		F4	12.63000*	1.62423	.000	7.2845	17.9755
		F5	-3.88000	1.62423	.195	-9.2255	1.4655
	F2	F1	-18.7700*	1.62423	.000	-24.1155	-13.4245
		F3	-.39667	1.62423	.999	-5.7421	4.9488
		F4	-6.14000*	1.62423	.023	-11.4855	-.7945
		F5	-22.6500*	1.62423	.000	-27.9955	-17.3045
	F3	F1	-18.3733*	1.62423	.000	-23.7188	-13.0279
		F2	.39667	1.62423	.999	-4.9488	5.7421
		F4	-5.74333*	1.62423	.034	-11.0888	-.3979
		F5	-22.2533*	1.62423	.000	-27.5988	-16.9079
	F4	F1	-12.6300*	1.62423	.000	-17.9755	-7.2845
		F2	6.14000*	1.62423	.023	.7945	11.4855
		F3	5.74333*	1.62423	.034	.3979	11.0888
		F5	-16.5100*	1.62423	.000	-21.8555	-11.1645
	F5	F1	3.88000	1.62423	.195	-1.4655	9.2255
		F2	22.65000*	1.62423	.000	17.3045	27.9955

		F3	22.25333*	1.62423	.000	16.9079	27.5988
		F4	16.51000*	1.62423	.000	11.1645	21.8555
Games-Howell	F1	F2	18.77000*	1.79580	.005	9.8720	27.6680
		F3	18.37333*	1.79822	.005	9.4570	27.2897
		F4	12.63000*	1.15568	.003	7.2128	18.0472
		F5	-3.88000	1.20095	.138	-9.3564	1.5964
	F2	F1	-18.7700*	1.79580	.005	-27.6680	-9.8720
		F3	-.39667	2.16744	1.000	-10.0322	9.2389
		F4	-6.14000	1.67326	.141	-15.6240	3.3440
		F5	-22.6500*	1.70484	.004	-31.9052	-13.3948
	F3	F1	-18.3733*	1.79822	.005	-27.2897	-9.4570
		F2	.39667	2.16744	1.000	-9.2389	10.0322
		F4	-5.74333	1.67585	.163	-15.2491	3.7625
		F5	-22.2533*	1.70739	.004	-31.5295	-12.9771
	F4	F1	-12.6300*	1.15568	.003	-18.0472	-7.2128
		F2	6.14000	1.67326	.141	-3.3440	15.6240
		F3	5.74333	1.67585	.163	-3.7625	15.2491
		F5	-16.5100*	1.00856	.000	-21.0194	-12.0006
	F5	F1	3.88000	1.20095	.138	-1.5964	9.3564
		F2	22.65000*	1.70484	.004	13.3948	31.9052
		F3	22.25333*	1.70739	.004	12.9771	31.5295
		F4	16.51000*	1.00856	.000	12.0006	21.0194

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

Lampiran 7.2. Uji Kemampuan Penetrasi

Tests of Normality

	Formula	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Kemampuan penetrasi	F1	.	3	.	.	3	.
	F2	.219	3	.	.987	3	.780
	F3	.321	3	.	.881	3	.328
	F4	.	3	.	.	3	.
	F5	.	3	.	.	3	.

a. Lilliefors Significance Correction

ANOVA

Kemampuan penetrasi

	Sum of Squares	df	Mean Square	F	Sig.
	15095.067	4	3773.767	463.988	.000
	81.333	10	8.133		
	15176.400	14			

Multiple Comparisons

Dependent Variable: Kemampuanpenetrasi

	(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	F1	F2	-81.66667*	2.32857	.000	-89.3302	-74.0032
		F3	-14.33333*	2.32857	.001	-21.9968	-6.6698
		F4	.00000	2.32857	1.000	-7.6635	7.6635
		F5	.00000	2.32857	1.000	-7.6635	7.6635
	F2	F1	81.66667*	2.32857	.000	74.0032	89.3302
		F3	67.33333*	2.32857	.000	59.6698	74.9968
		F4	81.66667*	2.32857	.000	74.0032	89.3302
		F5	81.66667*	2.32857	.000	74.0032	89.3302
	F3	F1	14.33333*	2.32857	.001	6.6698	21.9968
		F2	-67.33333*	2.32857	.000	-74.9968	-59.6698
		F4	14.33333*	2.32857	.001	6.6698	21.9968
		F5	14.33333*	2.32857	.001	6.6698	21.9968
	F4	F1	.00000	2.32857	1.000	-7.6635	7.6635
		F2	-81.66667*	2.32857	.000	-89.3302	-74.0032
		F3	-14.33333*	2.32857	.001	-21.9968	-6.6698
		F5	.00000	2.32857	1.000	-7.6635	7.6635
	F5	F1	.00000	2.32857	1.000	-7.6635	7.6635
		F2	-81.66667*	2.32857	.000	-89.3302	-74.0032
		F3	-14.33333*	2.32857	.001	-21.9968	-6.6698
		F4	.00000	2.32857	1.000	-7.6635	7.6635
Games-Howell	F1	F2	-81.66667*	1.45297	.001	-92.8460	-70.4874
		F3	-14.33333	3.38296	.151	-40.3622	11.6956
		F4	.00000	.00000	.	.0000	.0000
		F5	.00000	.00000	.	.0000	.0000
	F2	F1	81.66667*	1.45297	.001	70.4874	92.8460
		F3	67.33333*	3.68179	.002	46.2503	88.4164
		F4	81.66667*	1.45297	.001	70.4874	92.8460
		F5	81.66667*	1.45297	.001	70.4874	92.8460
	F3	F1	14.33333	3.38296	.151	-11.6956	40.3622
		F2	-67.33333*	3.68179	.002	-88.4164	-46.2503
		F4	14.33333	3.38296	.151	-11.6956	40.3622
		F5	14.33333	3.38296	.151	-11.6956	40.3622
	F4	F1	.00000	.00000	.	.0000	.0000
		F2	-81.66667*	1.45297	.001	-92.8460	-70.4874
		F3	-14.33333	3.38296	.151	-40.3622	11.6956
		F5	.00000	.00000	.	.0000	.0000
	F5	F1	.00000	.00000	.	.0000	.0000
		F2	-81.66667*	1.45297	.001	-92.8460	-70.4874
		F3	-14.33333	3.38296	.151	-40.3622	11.6956
		F4	.00000	.00000	.	.0000	.0000

ce is significant at the 0.05 level.

Lampiran 7.3. Uji Waktu Pemisahan

Tests of Normality							
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
Waktupemisahan	F1	.253	3	.	.964	3	.637
	F2	.292	3	.	.923	3	.463
	F3	.219	3	.	.987	3	.780
	F4	.175	3	.	1.000	3	1.000
	F5	.304	3	.	.907	3	.407
a. Lilliefors Significance Correction							

ANOVA					
Waktu pemisahan					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.267	4	2.067	.115	.974
Within Groups	179.333	10	17.933		
Total	187.600	14			

Multiple Comparisons							
Dependent Variable: Waktu pemisahan							
	(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	F1	F2	2.00000	3.45768	.975	-9.3795	13.3795
		F3	.33333	3.45768	1.000	-11.046	11.7128
		F4	.00000	3.45768	1.000	-11.379	11.3795
		F5	.66667	3.45768	1.000	-10.712	12.0462
	F2	F1	-2.00000	3.45768	.975	-13.379	9.3795
		F3	-1.66667	3.45768	.987	-13.046	9.7128
		F4	-2.00000	3.45768	.975	-13.379	9.3795
		F5	-1.33333	3.45768	.995	-12.712	10.0462
	F3	F1	-.33333	3.45768	1.000	-11.712	11.0462
		F2	1.66667	3.45768	.987	-9.7128	13.0462
		F4	-.33333	3.45768	1.000	-11.712	11.0462
		F5	.33333	3.45768	1.000	-11.046	11.7128
	F4	F1	.00000	3.45768	1.000	-11.379	11.3795
		F2	2.00000	3.45768	.975	-9.3795	13.3795
		F3	.33333	3.45768	1.000	-11.046	11.7128
		F5	.66667	3.45768	1.000	-10.712	12.0462
	F5	F1	-.66667	3.45768	1.000	-12.046	10.7128
		F2	1.33333	3.45768	.995	-10.046	12.7128
		F3	-.33333	3.45768	1.000	-11.712	11.0462
		F4	-.66667	3.45768	1.000	-12.046	10.7128

Games-Howell	F1	F2	2.00000	4.47214	.988	-18.838	22.8389
		F3	.33333	3.01846	1.000	-15.291	15.9580
		F4	.00000	2.70801	1.000	-18.871	18.8710
		F5	.66667	3.80058	1.000	-16.237	17.5709
	F2	F1	-2.00000	4.47214	.988	-22.838	18.8389
		F3	-1.66667	3.88730	.989	-24.485	21.1522
		F4	-2.00000	3.65148	.972	-28.569	24.5695
		F5	-1.33333	4.52155	.998	-22.224	19.5579
	F3	F1	-.33333	3.01846	1.000	-15.958	15.2913
		F2	1.66667	3.88730	.989	-21.152	24.4855
		F4	-.33333	1.56347	.999	-9.5601	8.8934
		F5	.33333	3.09121	1.000	-15.872	16.5389
	F4	F1	.00000	2.70801	1.000	-18.871	18.8710
		F2	2.00000	3.65148	.972	-24.569	28.5695
		F3	.33333	1.56347	.999	-8.8934	9.5601
		F5	.66667	2.78887	.999	-18.872	20.2057
	F5	F1	-.66667	3.80058	1.000	-17.570	16.2375
		F2	1.33333	4.52155	.998	-19.557	22.2245
		F3	-.33333	3.09121	1.000	-16.538	15.8722
		F4	-.66667	2.78887	.999	-20.205	18.8723

Lampiran 7.4. Uji dermatokinetik secara *ex vivo* pada kulit normal

Tests of Normality							
	Waktu	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Krim KLI	1 jam	.	3	.	.	3	.
	2 jam	.	3	.	.	3	.
	3 jam	.	3	.	.	3	.
	4 jam	.263	3	.	.956	3	.595
	5 jam	.193	3	.	.997	3	.892
	6 jam	.307	3	.	.904	3	.398
	7 jam	.232	3	.	.980	3	.726
	8 jam	.204	3	.	.993	3	.843
Krim MP-KLI	1 jam	.	3	.	.	3	.
	2 jam	.	3	.	.	3	.
	3 jam	.	3	.	.	3	.
	4 jam	.261	3	.	.957	3	.602
	5 jam	.230	3	.	.981	3	.734
	6 jam	.294	3	.	.921	3	.455
	7 jam	.292	3	.	.923	3	.463
	am	.309	3	.	.900	3	.386
	am	.232	3	.	.980	3	.729
	am	.360	3	.	.808	3	.133
	am	.219	3	.	.987	3	.780
	am	.190	3	.	.997	3	.902
	am	.199	3	.	.995	3	.864
	am	.328	3	.	.871	3	.298

	7 jam	.244	3	.	.972	3	.677
	8 jam	.190	3	.	.997	3	.903
MP-KLI-SEMAP	1 jam	.	3	.	.	3	.
	2 jam	.	3	.	.	3	.
	3 jam	.	3	.	.	3	.
	4 jam	.	3	.	.	3	.
	5 jam	.312	3	.	.895	3	.371
	6 jam	.284	3	.	.933	3	.501
	7 jam	.203	3	.	.994	3	.847
	8 jam	.175	3	.	1.000	3	1.000
a. Lilliefors Significance Correction							

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
KrimKLI	Between Groups	34.790	8	4.349	89.788	.000
	Within Groups	.872	18	.048		
	Total	35.661	26			
Krim MP-KLI	Between Groups	49.001	8	6.125	115.656	.000
	Within Groups	.953	18	.053		
	Total	49.954	26			
SEMAP-KLI	Between Groups	4048.561	8	506.070	219.082	.000
	Within Groups	41.579	18	2.310		
	Total	4090.141	26			
MP-KLI-SEMAP	Between Groups	81.732	8	10.217	167.974	.000
	Within Groups	1.095	18	.061		
	Total	82.827	26			

Lampiran 7.5 . Uji Dermatokinetik secara *ex vivo* pada model kulit terinfeksi

Tests of Normality

aktu	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
am	.	3	.	.	3	.
am	.	3	.	.	3	.
am	.	3	.	.	3	.
am	.267	3	.	.952	3	.577
am	.284	3	.	.933	3	.501

	6 jam	.258	3	.	.960	3	.616
	7 jam	.184	3	.	.999	3	.928
	8 jam	.238	3	.	.976	3	.700
Krim MP-KLI	1 jam	.	3	.	.	3	.
	2 jam	.	3	.	.	3	.
	3 jam	.	3	.	.	3	.
	4 jam	.267	3	.	.952	3	.577
	5 jam	.284	3	.	.933	3	.501
	6 jam	.258	3	.	.960	3	.616
	7 jam	.184	3	.	.999	3	.928
	8 jam	.238	3	.	.976	3	.700
SEMAP-KLI	1 jam	.265	3	.	.953	3	.583
	2 jam	.175	3	.	1.000	3	.990
	3 jam	.241	3	.	.973	3	.687
	4 jam	.267	3	.	.952	3	.577
	5 jam	.284	3	.	.933	3	.501
	6 jam	.258	3	.	.960	3	.616
	7 jam	.184	3	.	.999	3	.928
	8 jam	.238	3	.	.976	3	.700
MP-KLI-SEMAP	1 jam	.265	3	.	.953	3	.583
	2 jam	.175	3	.	1.000	3	.990
	3 jam	.241	3	.	.973	3	.687
	4 jam	.267	3	.	.952	3	.577
	5 jam	.284	3	.	.933	3	.501
	6 jam	.258	3	.	.960	3	.616
	7 jam	.184	3	.	.999	3	.928
	8 jam	.238	3	.	.976	3	.700
a. Lilliefors Significance Correction							

ANOVA

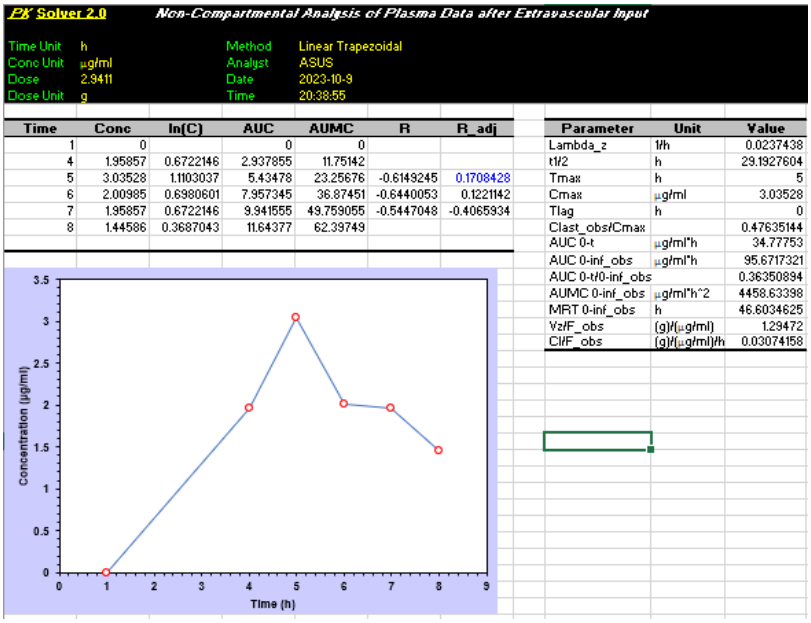
		Sum of Squares	df	Mean Square	F	Sig.
Krim KLI	Between Groups	4733.503	8	591.688	388.978	.000
	Within Groups	27.380	18	1.521		
	Total	4760.883	26			
Krim MP-KLI	Between Groups	4733.503	8	591.688	388.978	.000
	Within Groups	27.380	18	1.521		
		4760.883	26			
	een ps	3721.791	8	465.224	286.672	.000
	n ps	29.211	18	1.623		
		3751.002	26			

MP-KLI-SEMAP	Between Groups	3721.791	8	465.224	286.672	.000
	Within Groups	29.211	18	1.623		
	Total	3751.002	26			

Lampiran 8. Analisis PK Solver

Lampiran 8.1 Uji dermatokinetik secara *ex vivo* pada kulit normal

1. Krim KLI

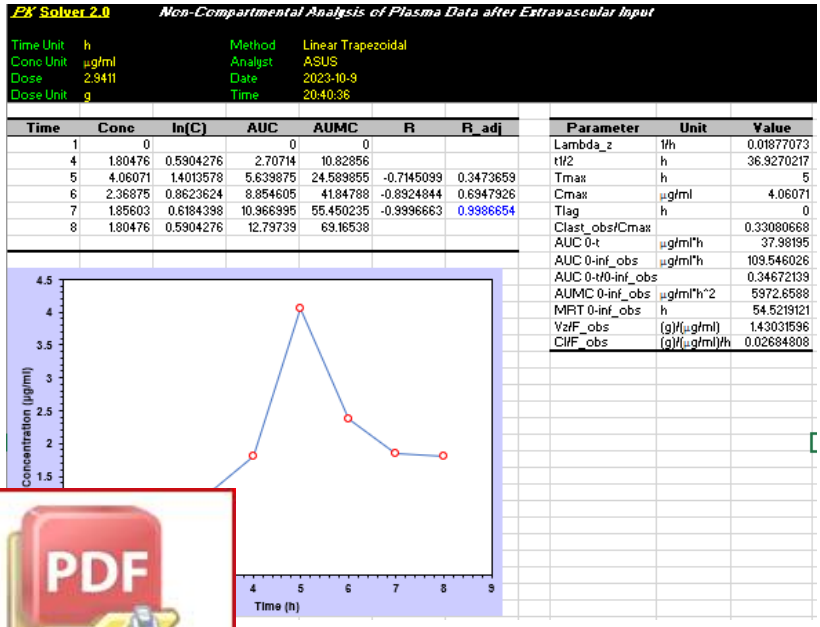


PK Solver 2.0 — Non-Compartmental Analysis of Plasma Data after Extravascular Input

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	2.9411	Date	2023-10-9
Dose Unit	g	Time	20:38:55

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	0		0	0		
4	1.95857	0.6722146	2.937855	11.75142		
5	3.03528	1.1103037	5.43478	23.25676	-0.6149245	0.1708428
6	2.00985	0.6980601	7.957345	36.87451	-0.6440053	0.1221142
7	1.95857	0.6722146	9.941555	49.759055	-0.5447048	-0.4065934
8	1.44586	0.3687043	11.64377	62.39749		

Parameter	Unit	Value
Lambda_z	1/h	0.0237438
t1/2	h	29.1927604
Tmax	h	5
Cmax	µg/ml	3.03528
Tlag	h	0
Clast_obs/Cmax		0.47635144
AUC 0-t	µg/ml*h	34.77753
AUC 0-inf_obs	µg/ml*h	95.6717321
AUC 0-t/0-inf_obs		0.36350894
AUMC 0-inf_obs	µg/ml*h^2	4458.63398
MRT 0-inf_obs	h	46.6034625
Vz/F_obs	(g)/(µg/ml)	1.29472
Cl/F_obs	(g)/(µg/ml)/h	0.03074158



PK Solver 2.0 — Non-Compartmental Analysis of Plasma Data after Extravascular Input

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	2.9411	Date	2023-10-9
Dose Unit	g	Time	20:40:36

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	0		0	0		
4	1.80476	0.5904276	2.70714	10.82856		
5	4.06071	1.4013578	5.639875	24.589855	-0.7145099	0.3473659
6	2.36875	0.8623624	8.854605	41.84788	-0.8924844	0.6947926
7	1.85603	0.6184398	10.966995	55.450235	-0.9996663	0.9986654
8	1.80476	0.5904276	12.79739	69.16538		

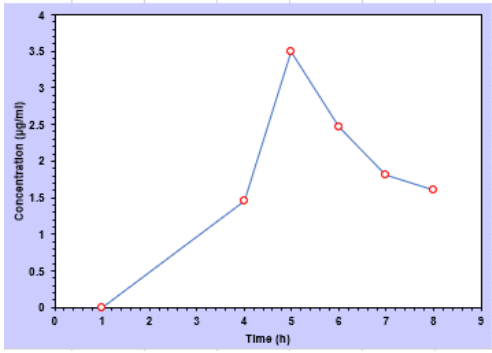
Parameter	Unit	Value
Lambda_z	1/h	0.01877073
t1/2	h	36.9270217
Tmax	h	5
Cmax	µg/ml	4.06071
Tlag	h	0
Clast_obs/Cmax		0.33080668
AUC 0-t	µg/ml*h	37.98195
AUC 0-inf_obs	µg/ml*h	109.546026
AUC 0-t/0-inf_obs		0.34672139
AUMC 0-inf_obs	µg/ml*h^2	5972.6588
MRT 0-inf_obs	h	54.5219121
Vz/F_obs	(g)/(µg/ml)	1.43031596
Cl/F_obs	(g)/(µg/ml)/h	0.02684808

PK Solver 2.0 *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	2.9411	Date	2023-10-9
Dose Unit	g	Time	20:40:56

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	0		0	0		
4	1.44586	0.3687043	2.16879	8.67516		
5	3.49672	1.2518254	4.64008	20.30868	-0.593071	0.1356442
6	2.47129	0.9047403	7.624085	36.46435	-0.5879108	0.0184587
7	1.80476	0.5904276	9.76211	50.19488	-0.7027363	-0.0123233
8	1.59967	0.4697974	11.464325	62.91022		

Parameter	Unit	Value
Lambda_z	1/h	0.02587142
t1/2	h	26.7920009
Tmax	h	5
Cmax	µg/ml	3.49672
Tlag	h	0
Clast_obs/Cmax		0.44281498
AUC 0-t	µg/ml*h	36.648885
AUC 0-inf_obs	µg/ml*h	96.4987053
AUC 0-t/0-inf_obs		0.37978629
AUMC 0-inf_obs	µg/ml*h^2	4212.33395
MRT 0-inf_obs	h	43.6517147
Vz/F_obs	(g)/(µg/ml)	1.17806158
Cl/F_obs	(g)/(µg/ml)/h	0.03047813



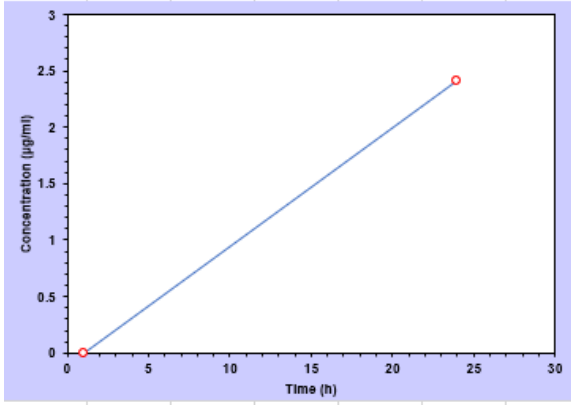
2. Krim-MP-KLI

PK Solver 2.0 *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	2.9411	Date	2023-10-9
Dose Unit	g	Time	20:41:57

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	0		0	0		
24	2.41322	0.880962	27.75203	666.04872		

Parameter	Unit	Value
Lambda_z	1/h	Missing
t1/2	h	Missing
Tmax	h	24
Cmax	µg/ml	2.41322
Tlag	h	0
Clast_obs/Cmax		1
AUC 0-t	µg/ml*h	27.752
AUC 0-inf_obs	µg/ml*h	Missing
AUC 0-t/0-inf_obs		Missing
AUMC 0-inf_obs	µg/ml*h^2	Missing
MRT 0-inf_obs	h	Missing
Vz/F_obs	(g)/(µg/ml)	Missing
Cl/F_obs	(g)/(µg/ml)/h	Missing

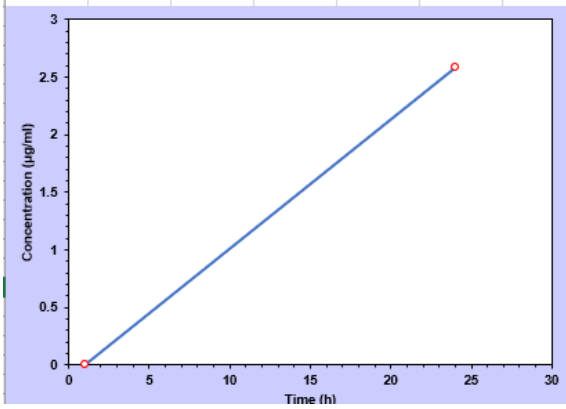


PK Solver 2.0 — *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	2.9	Date	2023-10-9
Dose Unit	g	Time	20:43:34

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	0		0	0		
24	2.57851	0.9472117	29.652865	711.66876		

Parameter	Unit	Value
Lambda_z	1/h	Missing
t1/2	h	Missing
Tmax	h	24
Cmax	µg/ml	2.57851
Tlag	h	0
Clast_obs/Cmax		1
AUC 0-t	µg/ml*h	29.65287
AUC 0-inf_obs	µg/ml*h	Missing
AUC 0-t/0-inf_obs		Missing
AUMC 0-inf_obs	µg/ml*h^2	Missing
MRT 0-inf_obs	h	Missing
Vz/F_obs	(g)/(µg/ml)	Missing
Cl/F_obs	(g)/(µg/ml)/h	Missing

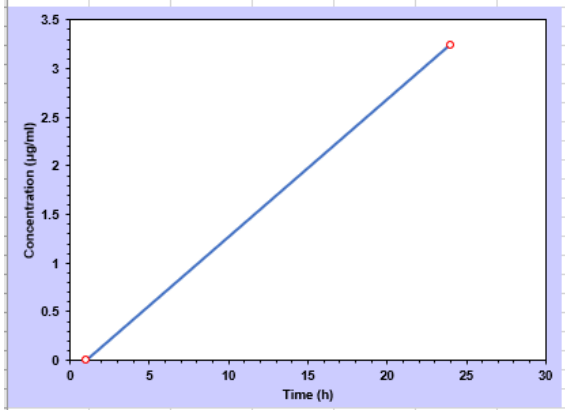


PK Solver 2.0 — *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	2.9	Date	2023-10-9
Dose Unit	g	Time	20:44:16

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	0		0	0		
24	3.23967	1.1754715	37.256205	894.14892		

Parameter	Unit	Value
Lambda_z	1/h	Missing
t1/2	h	Missing
Tmax	h	24
Cmax	µg/ml	3.23967
Tlag	h	0
Clast_obs/Cmax		1
AUC 0-t	µg/ml*h	37.25621
AUC 0-inf_obs	µg/ml*h	Missing
AUC 0-t/0-inf_obs		Missing
AUMC 0-inf_obs	µg/ml*h^2	Missing
MRT 0-inf_obs	h	Missing
Vz/F_obs	(g)/(µg/ml)	Missing
Cl/F_obs	(g)/(µg/ml)/h	Missing



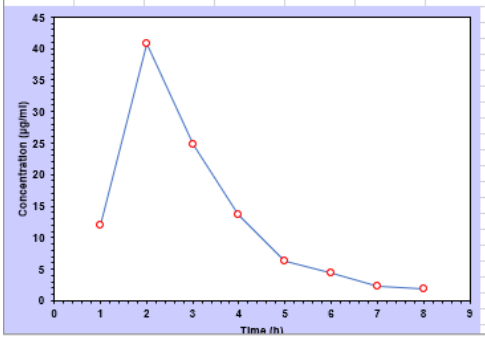
3. SEMAP-KLI

PK Solver 2.0 — *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	0.34	Date	2023-10-9
Dose Unit	g	Time	20:45:57

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	11.854	2.4726654	5.927	5.927		
2	40.7711	3.7079735	32.23955	52.6251	-0.7170276	0.4331501
3	24.8257	3.2118794	65.03795	130.63475	-0.7000699	0.3881174
4	13.6485	2.6136296	84.27505	195.1703	-0.6979206	0.3588664
5	6.26438	1.8348796	94.23149	238.12825	-0.7295439	0.3763124
6	4.31707	1.4625769	99.522215	266.74041	-0.7396148	0.3205451
7	2.31747	0.8404761	102.83949	287.80277	-0.9117388	0.6625353
8	1.80476	0.5904276	104.9006	303.13295		

Parameter	Unit	Value
Lambda_z	1/h	0.02609061
t1/2	h	26.5669233
Tmax	h	2
Cmax	µg/ml	40.7711
Tlag	h	0
Clast_obs/Cmax		0.0329476
AUC 0-t	µg/ml*h	130.08516
AUC 0-inf_obs	µg/ml*h	181.571503
AUC 0-t/0-inf_obs		0.7164404
AUMC 0-inf_obs	µg/ml*h^2	3885.5923
MRT 0-inf_obs	h	21.3997914
Vz/F_obs	(g)/(µg/ml)	0.07177067
Cl/F_obs	(g)/(µg/ml)/h	0.00187254

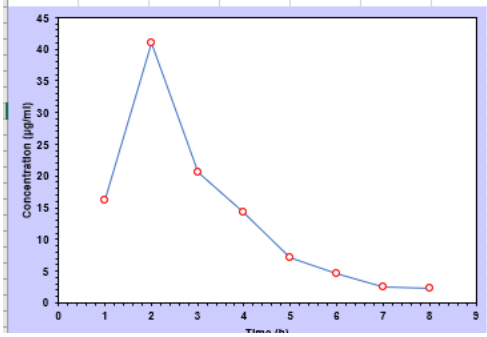


PK Solver 2.0 — *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	0.34	Date	2023-10-9
Dose Unit	g	Time	20:46:24

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	16.2121	2.7857579	8.10605	8.10605		
2	40.925	3.7117411	36.6746	57.1371	-0.7361785	0.4656185
3	20.5189	3.0213464	67.39655	128.84045	-0.7337252	0.4460233
4	14.2637	2.6577178	84.78785	188.1462	-0.726702	0.4101197
5	7.18827	1.9724505	95.513835	234.64428	-0.7685051	0.4541335
6	4.62469	1.5314093	101.42032	266.48902	-0.8188356	0.5057377
7	2.57383	0.9453951	105.01958	289.3715	-0.9959251	0.9837338
8	2.36875	0.8623624	107.49087	307.8549		

Parameter	Unit	Value
Lambda_z	1/h	0.03046776
t1/2	h	22.7501825
Tmax	h	2
Cmax	µg/ml	40.925
Tlag	h	0
Clast_obs/Cmax		0.03658228
AUC 0-t	µg/ml*h	138.417905
AUC 0-inf_obs	µg/ml*h	187.55607
AUC 0-t/0-inf_obs		0.73800813
AUMC 0-inf_obs	µg/ml*h^2	3539.01183
MRT 0-inf_obs	h	18.8690871
Vz/F_obs	(g)/(µg/ml)	0.05943866
Cl/F_obs	(g)/(µg/ml)/h	0.00181279

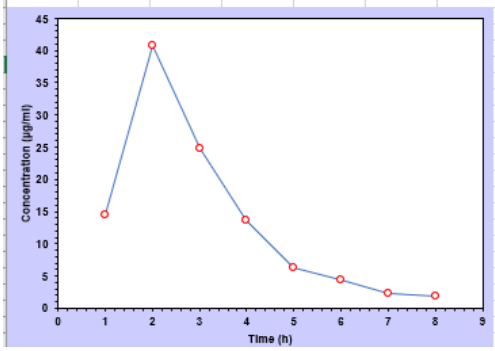


PK Solver 2.0 — Non-Compartmental Analysis of Plasma Data after Extravascular Input

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	0.34	Date	2023-10-9
Dose Unit	mg	Time	20:48:01

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	14.5714	2.6790607	7.2857	7.2857		
2	40.7711	3.7079735	34.95695	55.3425	-0.7170336	0.4331601
3	24.8257	3.2118794	67.75535	133.35215	-0.7000761	0.3881278
4	13.6485	2.6136296	86.99245	197.8877	-0.6979236	0.3588717
5	6.26538	1.8350392	96.94939	240.84815	-0.7295234	0.3762725
6	4.31707	1.4625769	102.24062	269.46281	-0.7396148	0.3205451
7	2.31747	0.8404761	105.55789	290.52517	-0.9117388	0.6625353
8	1.80476	0.5904276	107.619	305.85535		

Parameter	Unit	Value
Lambda_z	1/h	0.02609061
t1/2	h	26.5669233
Tmax	h	2
Cmax	µg/ml	40.7711
Tlag	h	0
Clast_obs/Cmax		0.0329476
AUC 0-t	µg/ml*h	132.80356
AUC 0-inf_obs	µg/ml*h	184.289903
AUC 0-t/0-inf_obs		0.72062309
AUMC 0-inf_obs	µg/ml*h^2	3888.3147
MRT 0-inf_obs	h	21.0989025
Vz/F_obs	(mg)/(µg/ml)	0.07071201
Cl/F_obs	(mg)/(µg/ml)/h	0.00184492



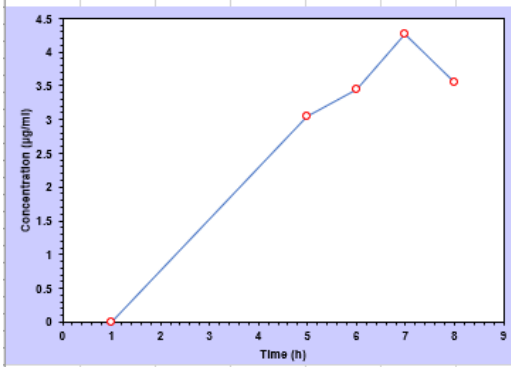
4. MP-KLI-SEMAP

PK Solver 2.0 — Non-Compartmental Analysis of Plasma Data after Extravascular Input

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	0.34	Date	2023-10-9
Dose Unit	mg	Time	20:56:16

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	0		0	0		
5	3.0528	1.1160592	6.1056	30.528		
6	3.445445	1.2370531	9.3547225	48.496335		
7	4.26579	1.4506274	13.21034	73.762935	-0.9161537	0.6786751
8	3.54799	1.2663812	17.11723	102.88516		

Parameter	Unit	Value
Lambda_z	1/h	0.01973565
t1/2	h	35.1215788
Tmax	h	7
Cmax	µg/ml	4.26579
Tlag	h	0
Clast_obs/Cmax		0.6634621
AUC 0-t	µg/ml*h	68.14267
AUC 0-inf_obs	µg/ml*h	211.547626
AUC 0-t/0-inf_obs		0.32211503
AUMC 0-inf_obs	µg/ml*h^2	11581.362
MRT 0-inf_obs	h	54.745885
Vz/F_obs	(mg)/(µg/ml)	0.08143654
Cl/F_obs	(mg)/(µg/ml)/h	0.0016072

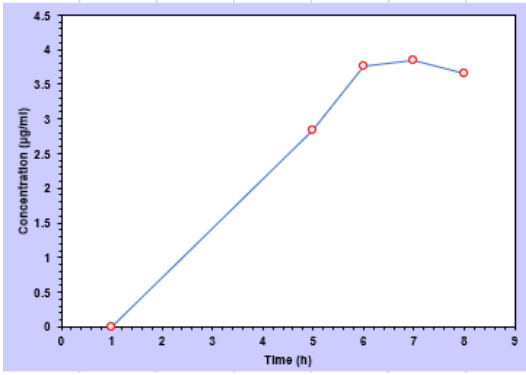


PK Solver 2.0 — *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	μg/ml	Analyst	ASUS
Dose	0.34	Date	2023-10-9
Dose Unit	mg	Time	20:56:38

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	0		0	0		
5	2.83019	1.0403438	5.66038	28.3019		
6	3.75308	1.3225768	8.952015	46.636615		
7	3.85562	1.3495318	12.756365	71.390525	-0.9437759	0.7814257
8	3.65054	1.2948751	16.509445	99.487355		

Parameter	Unit	Value
Lambda_z	1/h	0.00712257
t1/2	h	97.3169917
Tmax	h	7
Cmax	μg/ml	3.85562
Tlag	h	0
Clast_obs/Cmax		0.86702268
AUC 0-t	μg/ml*h	72.457045
AUC 0-inf_obs	μg/ml*h	541.797401
AUC 0-t/0-inf_obs		0.13373457
AUMC 0-inf_obs	μg/ml*h^2	78133.9245
MRT 0-inf_obs	h	144.212439
Vz/F_obs	(mg)/(μg/ml)	0.08810595
Cl/F_obs	(mg)/(μg/ml)/h	0.00062754

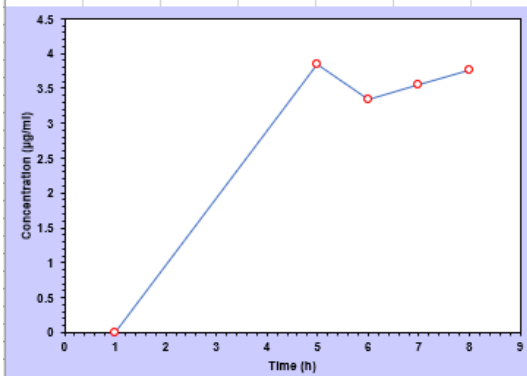


PK Solver 2.0 — *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	μg/ml	Analyst	ASUS
Dose	0.34	Date	2023-10-9
Dose Unit	mg	Time	20:57:01

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	0		0	0		
5	3.85562	1.3495318	7.71124	38.5562	-0.8158554	0.55416
6	3.34291	1.2068417	11.310505	58.22398	-0.8000524	0.4601259
7	3.54799	1.2663812	14.755955	80.670675	-0.9520968	0.8129765
8	3.75308	1.3225768	18.40649	108.10096		

Parameter	Unit	Value
Lambda_z	1/h	0.01097709
t1/2	h	63.1448675
Tmax	h	5
Cmax	μg/ml	3.85562
Tlag	h	0
Clast_obs/Cmax		0.78723526
AUC 0-t	μg/ml*h	72.71337
AUC 0-inf_obs	μg/ml*h	349.223697
AUC 0-t/0-inf_obs		0.20821431
AUMC 0-inf_obs	μg/ml*h^2	32757.0751
MRT 0-inf_obs	h	93.7996917
Vz/F_obs	(mg)/(μg/ml)	0.08869269
Cl/F_obs	(mg)/(μg/ml)/h	0.00097359



Lampiran 8.2 Uji dermatokinetik secara *ex vivo* pada kulit normal

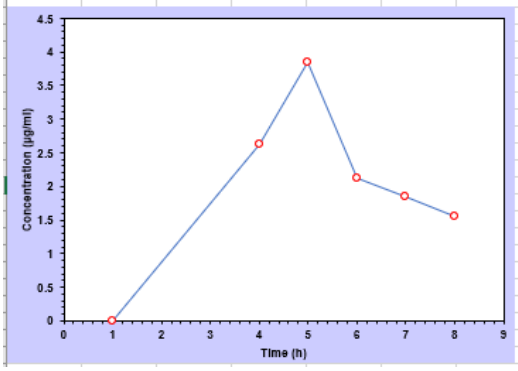
1. Krim KLI

PK Solver 2.0 — *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	2.9	Date	2023-10-9
Dose Unit	g	Time	21:03:15

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	0		0	0		
4	2.6251	0.965119	3.93765	15.7506		
5	3.85562	1.3495318	7.17801	30.63985	-0.5919116	0.1338124
6	2.11239	0.74782	10.162015	46.61607	-0.7412288	0.3241302
7	1.85603	0.6184398	12.146225	59.449345	-0.7478102	0.1184402
8	1.5484	0.4372221	13.84844	72.13905		

Parameter	Unit	Value
Lambda_z	1/h	0.01496876
t1/2	h	46.3062517
Tmax	h	5
Cmax	µg/ml	3.85562
Tlag	h	0
Clast_obs/Cmax		0.37500065
AUC 0-t	µg/ml*h	37.80252
AUC 0-inf_obs	µg/ml*h	134.394354
AUC 0-t/0-inf_obs		0.28128057
AUMC 0-inf_obs	µg/ml*h^2	9219.94045
MRT 0-inf_obs	h	68.6036296
Vz/F_obs	(g)/(µg/ml)	1.44155475
Cl/F_obs	(g)/(µg/ml)/h	0.02157829

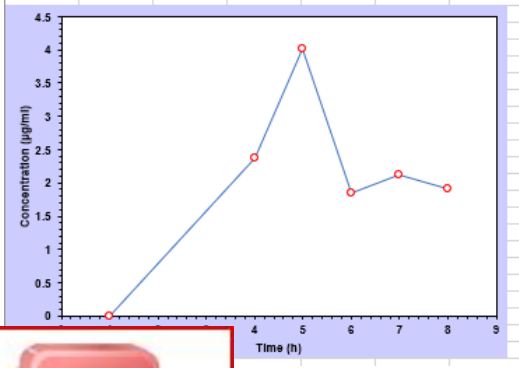


PK Solver 2.0 — *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	2.94	Date	2023-10-9
Dose Unit	g	Time	21:06:40

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	0		0	0		
4	2.36875	0.8623624	3.553125	14.2125		
5	4.00944	1.3886516	6.74222	28.9736	-0.6716161	0.2680909
6	1.85603	0.6184398	9.674955	44.56529	-0.9394467	0.8238403
7	2.11239	0.74782	11.659165	57.526745	-0.9827823	0.9317221
8	1.9073	0.6456886	13.66901	72.54931		

Parameter	Unit	Value
Lambda_z	1/h	0.02228988
t1/2	h	31.096946
Tmax	h	5
Cmax	µg/ml	4.00944
Tlag	h	0
Clast_obs/Cmax		0.34782663
AUC 0-t	µg/ml*h	40.08413
AUC 0-inf_obs	µg/ml*h	102.650193
AUC 0-t/0-inf_obs		0.3904925
AUMC 0-inf_obs	µg/ml*h^2	4770.8902
MRT 0-inf_obs	h	46.4771675
Vz/F_obs	(g)/(µg/ml)	1.2849311
Cl/F_obs	(g)/(µg/ml)/h	0.02864096

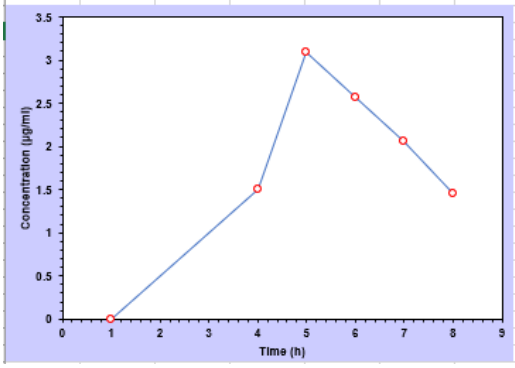


PK Solver 2.0 — Non-Compartmental Analysis of Plasma Data after Extravascular Input

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	μg/ml	Analyst	ASUS
Dose	2.94	Date	2023-10-9
Dose Unit	g	Time	21:07:08

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	0		0	0		
4	1.49713	0.4035499	2.245695	8.98278		
5	3.08655	1.127054	4.537535	19.693415	-0.7209397	0.359672
6	2.57383	0.9453951	7.367725	35.13128	-0.6995064	0.2339638
7	2.06112	0.7232495	9.6852	50.06669	-0.6723869	-0.0957917
8	1.44586	0.3687043	11.43869	63.06405		

Parameter	Unit	Value
Lambda_z	1/h	0.03276837
t1/2	h	21.1529326
Tmax	h	5
Cmax	μg/ml	3.08655
Tlag	h	0
Clast_obs/Cmax		0.43521407
AUC 0-t	μg/ml*h	33.75205
AUC 0-inf_obs	μg/ml*h	74.7461515
AUC 0-t/0-inf_obs		0.45155569
AUMC 0-inf_obs	μg/ml*h^2	2648.39951
MRT 0-inf_obs	h	35.431918
Vz/F_obs	(g)/(μg/ml)	1.20033817
Cl/F_obs	(g)/(μg/ml)/h	0.03933313



2. Krim-MP-KL

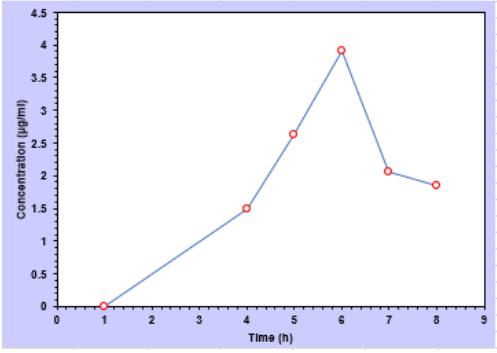
PK Solver 2.0 — Non-Compartmental Analysis of Plasma Data after Extravascular Input

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	μg/ml	Analyst	ASUS
Dose	2.94	Date	2023-10-9
Dose Unit	g	Time	21:07:48

KRIM

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	0		0	0		
4	1.49713	0.4035499	2.245695	8.98278		
5	2.6251	0.965119	4.30681	18.53979		
6	3.90689	1.3627417	7.572805	36.82321	-0.7395389	0.3203766
7	2.06112	0.7232495	10.55681	55.7578	-0.9830077	0.9326083
8	1.85603	0.6184398	12.515385	70.39584		

Parameter	Unit	Value
Lambda_z	1/h	0.02299556
t1/2	h	30.1426504
Tmax	h	6
Cmax	μg/ml	3.90689
Tlag	h	0
Clast_obs/Cmax		0.34383103
AUC 0-t	μg/ml*h	38.110105
AUC 0-inf_obs	μg/ml*h	96.5261599
AUC 0-t/0-inf_obs		0.39481634
AUMC 0-inf_obs	μg/ml*h^2	4389.40127
MRT 0-inf_obs	h	45.4736962
Vz/F_obs	(g)/(μg/ml)	1.32451926
Cl/F_obs	(g)/(μg/ml)/h	0.03045806

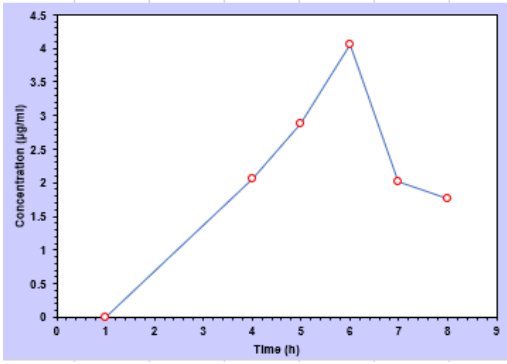


PK Solver 2.0 *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	μg/ml	Analyst	ASUS
Dose	2.94	Date	2023-10-9
Dose Unit	g	Time	21:08:16

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	0		0	0		
4	2.06112	0.7232495	3.09168	12.36672		
5	2.88146	1.0582971	5.56297	23.69261		
6	4.06071	1.4013578	9.034055	43.07839	-0.6460358	0.1260434
7	2.00985	0.6980601	12.069335	62.294995	-0.9314119	0.7350561
8	1.75349	0.5616081	13.951005	76.34343		

Parameter	Unit	Value
Lambda_z	1/h	0.01615744
t1/2	h	42.8995727
Tmax	h	6
Cmax	μg/ml	4.06071
Tlag	h	0
Clast_obs/Cmax		0.35606089
AUC 0-t	μg/ml*h	39.545805
AUC 0-inf_obs	μg/ml*h	129.031527
AUC 0-t/0-inf_obs		0.30648172
AUMC 0-inf_obs	μg/ml*h^2	8152.19017
MRT 0-inf_obs	h	63.1798316
Vz/F_obs	(g)/(μg/ml)	1.41019444
Cl/F_obs	(g)/(μg/ml)/h	0.02278513

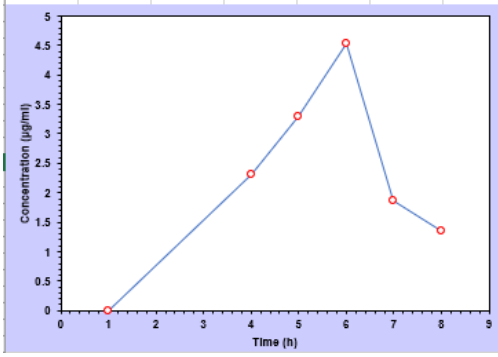


PK Solver 2.0 *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	μg/ml	Analyst	ASUS
Dose	2.94	Date	2023-10-9
Dose Unit	g	Time	21:08:37

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	0		0	0		
4	2.31747	0.8404761	3.476205	13.90482		
5	3.29163	1.1913829	6.280755	26.768835		
6	4.52215	1.5089875	10.187645	48.56436	-0.5017438	-0.1223797
7	1.85603	0.6184398	13.376735	68.626915	-0.4528077	-0.5899303
8	1.34331	0.2951367	14.976405	80.49626		

Parameter	Unit	Value
Lambda_z	1/h	0.03323014
t1/2	h	20.8589935
Tmax	h	6
Cmax	μg/ml	4.52215
Tlag	h	0
Clast_obs/Cmax		0.30839092
AUC 0-t	μg/ml*h	36.879605
AUC 0-inf_obs	μg/ml*h	78.847234
AUC 0-t/0-inf_obs		0.46773492
AUMC 0-inf_obs	μg/ml*h^2	2704.39132
MRT 0-inf_obs	h	34.2991274
Vz/F_obs	(g)/(μg/ml)	1.12209275
Cl/F_obs	(g)/(μg/ml)/h	0.03728729



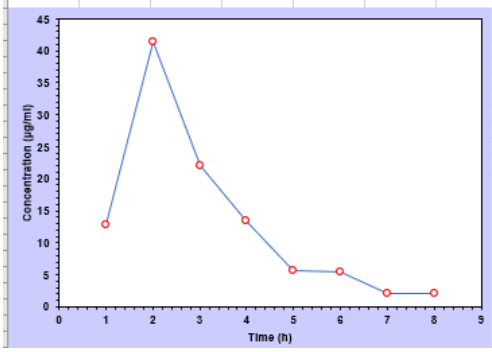
3. SEMAP-KLI

PK Solver 2.0 — *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	0.34	Date	2023-10-9
Dose Unit	mg	Time	21:10:29

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	12.7256	2.5436157	6.3628	6.3628		
2	41.4377	3.7241911	33.44445	54.1633	-0.7178235	0.4344824
3	22.0058	3.0913061	65.1662	128.6097	-0.7054368	0.3971692
4	13.4434	2.5984883	82.8908	188.5052	-0.6949086	0.3536224
5	5.65013	1.7316786	92.437565	229.51733	-0.7127306	0.3439799
6	5.44504	1.6947051	97.98515	259.97777	-0.6705227	0.174401
7	2.00985	0.6980601	101.7126	283.34737	-0.999988	0.9999522
8	1.95857	0.6722146	103.69681	298.21612		

Parameter	Unit	Value
Lambda_z	1/h	0.02364247
t1/2	h	29.3178821
Tmax	h	2
Cmax	µg/ml	41.4377
Tlag	h	0
Clast_obs/Cmax		0.03241758
AUC 0-t	µg/ml*h	130.111845
AUC 0-inf_obs	µg/ml*h	186.92951
AUC 0-t/0-inf_obs		0.69604764
AUMC 0-inf_obs	µg/ml*h^2	4448.30739
MRT 0-inf_obs	h	23.7967103
Vz/F_obs	(mg)/(µg/ml)	0.07693221
Cl/F_obs	(mg)/(µg/ml)/h	0.00181887

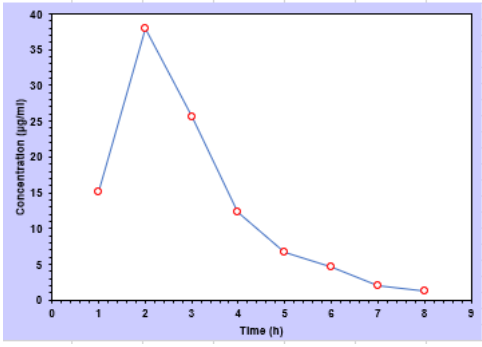


PK Solver 2.0 — *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	0.34	Date	2023-10-9
Dose Unit	mg	Time	21:11:11

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	15.1354	2.7170364	7.5677	7.5677		
2	37.9512	3.6363011	34.111	53.0866	-0.6676281	0.3533484
3	25.5948	3.2423892	65.884	129.43	-0.6312223	0.2781299
4	12.3154	2.5108505	84.8391	192.453	-0.6002419	0.2003629
5	6.72683	1.906104	94.360215	233.90088	-0.5510551	0.071549
6	4.62469	1.5314093	100.03598	264.59202	-0.4590694	-0.1838829
7	2.06112	0.7232495	103.37888	285.68001	-0.2417538	-0.8831102
8	1.34331	0.2951367	105.0811	298.26717		

Parameter	Unit	Value
Lambda_z	1/h	0.12113505
t1/2	h	5.72210238
Tmax	h	2
Cmax	µg/ml	37.9512
Tlag	h	0
Clast_obs/Cmax		0.04079976
AUC 0-t	µg/ml*h	128.214775
AUC 0-inf_obs	µg/ml*h	140.997202
AUC 0-t/0-inf_obs		0.90934269
AUMC 0-inf_obs	µg/ml*h^2	1093.83218
MRT 0-inf_obs	h	7.75782895
Vz/F_obs	(mg)/(µg/ml)	0.01990667
Cl/F_obs	(mg)/(µg/ml)/h	0.0024114

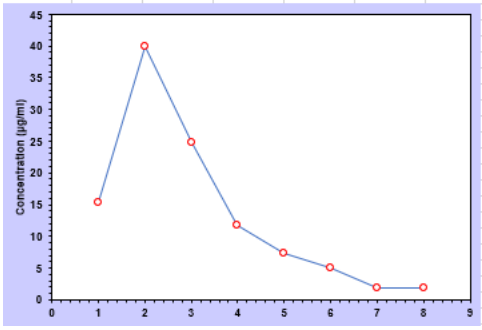


PK Solver 2.0 *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	0.34	Date	2023-10-9
Dose Unit	mg	Time	21:11:34

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	15.2892	2.7271467	7.6446	7.6446		
2	39.9508	3.6876487	35.2646	55.24	-0.6935144	0.3944559
3	24.8257	3.2118794	67.65285	132.42935	-0.6678351	0.3352045
4	11.7002	2.4596059	85.9158	193.0683	-0.651074	0.2798716
5	7.29082	1.986616	95.41131	234.69575	-0.6154578	0.1717177
6	5.03487	1.6163877	101.57416	268.02741	-0.5625757	-0.0252628
7	1.80476	0.5904276	104.99397	289.44868	-0.9977312	0.990935
8	1.75349	0.5616081	106.7731	302.7793		

Parameter	Unit	Value
Lambda_z	1/h	0.01260911
t1/2	h	54.9719155
Tmax	h	2
Cmax	µg/ml	39.9508
Tlag	h	0
Clast_obs/Cmax		0.03619101
AUC 0-t	µg/ml*h	132.367895
AUC 0-inf_obs	µg/ml*h	247.03574
AUC 0-t/0-inf_obs		0.53582488
AUMC 0-inf_obs	µg/ml*h^2	12538.6803
MRT 0-inf_obs	h	50.7565435
Vz/F_obs	(mg)/(µg/ml)	0.10915271
Cl/F_obs	(mg)/(µg/ml)/h	0.00137632



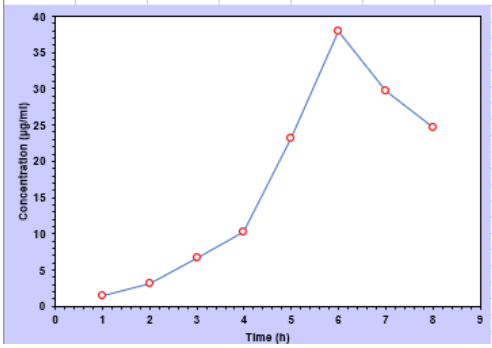
4. MP-KLI-SEMAP

PK Solver 2.0 *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	0.34	Date	2023-10-9
Dose Unit	mg	Time	21:12:01

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	1.49713	0.4035499	0.748565	0.748565		
2	3.18909	1.1597356	3.091675	4.68622		
3	6.72683	1.906104	8.049635	17.965555		
4	10.2646	2.3287011	16.54535	48.585		
5	23.1337	3.1412904	33.2445	126.94845		
6	37.9512	3.6363011	63.78695	298.6363	-0.9375212	0.8184191
7	29.7478	3.3927552	97.63645	516.6072	-0.9788056	0.9161208
8	24.6206	3.2035835	124.82065	719.2069		

Parameter	Unit	Value
Lambda_z	1/h	0.03793836
t1/2	h	18.2703536
Tmax	h	6
Cmax	µg/ml	37.9512
Tlag	h	0
Clast_obs/Cmax		0.38395097
AUC 0-t	µg/ml*h	438.35665
AUC 0-inf_obs	µg/ml*h	822.437605
AUC 0-t/0-inf_obs		0.53299685
AUMC 0-inf_obs	µg/ml*h^2	24434.3935
MRT 0-inf_obs	h	29.7097231
Vz/F_obs	(mg)/(µg/ml)	0.01089676
Cl/F_obs	(mg)/(µg/ml)/h	0.00041341

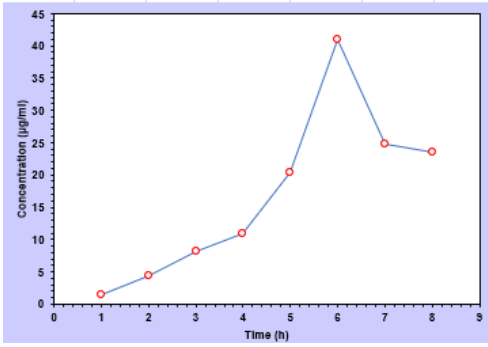


PK Solver 2.0 *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	0.34	Date	2023-10-9
Dose Unit	mg	Time	21:12:21

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	1.34331	0.2951367	0.671655	0.671655		
2	4.31707	1.4625769	3.501845	5.66038		
3	8.16243	2.0995419	9.741595	22.221095		
4	10.8286	2.3821908	19.23711	56.12194		
5	20.2625	3.0087719	34.78266	128.43539		
6	40.9762	3.7129914	65.40201	302.02024	-0.8076739	0.4785057
7	24.8257	3.2118794	98.30296	511.83879	-0.9977609	0.9910535
8	23.4926	3.1566855	122.46211	692.69914		

Parameter	Unit	Value
Lambda_z	1/h	0.02423828
t1/2	h	28.5972084
Tmax	h	6
Cmax	µg/ml	40.9762
Tlag	h	0
Clast_obs/Cmax		0.39564674
AUC 0-t	µg/ml*h	440.09971
AUC 0-inf_obs	µg/ml*h	1108.96314
AUC 0-t/0-inf_obs		0.39685693
AUMC 0-inf_obs	µg/ml*h^2	48957.0038
MRT 0-inf_obs	h	44.1466464
Vz/F_obs	(mg)/(µg/ml)	0.01264911
Cl/F_obs	(mg)/(µg/ml)/h	0.00030659

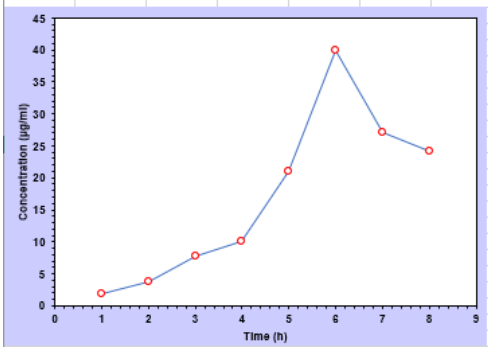


PK Solver 2.0 *Non-Compartmental Analysis of Plasma Data after Extravascular Input*

Time Unit	h	Method	Linear Trapezoidal
Conc Unit	µg/ml	Analyst	ASUS
Dose	0.34	Date	2023-10-9
Dose Unit	mg	Time	21:13:03

Time	Conc	ln(C)	AUC	AUMC	R	R_adj
1	1.85603	0.6184398	0.928015	0.928015		
2	3.75308	1.3225768	3.73257	5.60911		
3	7.64972	2.034669	9.43397	20.83677		
4	10.0082	2.3034048	18.26293	52.32775		
5	21.0316	3.0460261	33.78283	124.92315		
6	40.0021	3.688932	64.29968	297.50845	-0.9248338	0.7829765
7	27.1329	3.300747	97.86718	512.4799	-0.9957266	0.9829429
8	24.2104	3.1867823	123.53883	704.28665		

Parameter	Unit	Value
Lambda_z	1/h	0.04118623
t1/2	h	16.829585
Tmax	h	6
Cmax	µg/ml	40.0021
Tlag	h	0
Clast_obs/Cmax		0.32581289
AUC 0-t	µg/ml*h	421.48763
AUC 0-inf_obs	µg/ml*h	737.933188
AUC 0-t/0-inf_obs		0.57117316
AUMC 0-inf_obs	µg/ml*h^2	20034.1052
MRT 0-inf_obs	h	27.1489418
Vz/F_obs	(mg)/(µg/ml)	0.0111869
Cl/F_obs	(mg)/(µg/ml)/h	0.00046075



Lampiran 9. Dokumentasi Kegiatan

Analisis menggunakan Spektrofotometer UV-Vis

Formulasi MP-KLI-SEMAP

Karakterisasi MP-KLI

Uji dermatokinetik secara *ex vivo*