DAFTAR PUSTAKA

Agarwal, N. B., Agarwal, N. K., Mediratta, P. K., & Sharma, K. K. 2011. Effect of Lamotrigine, Oxcarbazepine and Topiramate On Cognitive Functions and Oxidative Stress In PTZ-Kindled Mice. *Seizure*. 20(3): 257–262. doi: 10.1111/j.1742-7843.2009.00499.x.

Agustina, R. 2021. *Metabolomic Study of Food Derived Compounds Interacting with ABC Transporter*. Kanazawa.

Arora, T., Mehta, A. K., Sharma, K. K., Mediratta, P. K., Banerjee, B. D., Garg, G. R., & Sharma, A. K. 2010. Effect of Carbamazepine and Lamotrigine on Cognitive Function and Oxidative Stress in Brain during Chemical Epileptogenesis in Rats. *Basic Clin. Pharm. Toxicol*. 106: 372–377.

Ayala A, Munoz FM, Arguelles S. 2014. Lipid Peroxidation: Production, Metabolism, Signaling Mechanism Of Malondialdehyde And 4-Hydroxy-2-Nonenal. *Oxid Med Cell Longev*. 1-33. doi: 10.1016/j.seizure.2010.12.006.

Badshah H. 2016. Protective Effect Of Lupeol Against Lipopolysaccharide-Induced Neuroinflammation Via The P38/C-Jun N-Terminal Kinase Pathway In The Adult Mouse Brain. *J. Neuroimmune Pharmacol*. 11: 48–60. doi: 10.1007/s11481-015-9623-z.

Bauer, P., Zalis, M. C., Deierborg, T., Johansson, F., & Johansson, U. E. 2014. Lipopolysaccaride (LPS)-Induced Inflammation in the Retina: Effects on Microglia Activation, Cytokine Expression Profile and Retinal Ganglion Cell Death. *Investigative Ophthalmology & Visual Science*. 55(13): 2266-2266.

Boonen B., Alpizar Y.A., Sanchez A., Lopez-Requena A., Voets T., Talavera K. 2018. Differential Effects Of Lipopolysaccharide On Mouse Sensory TRP Channels. *Cell Calcium*. 73:72–81. doi : 10.1016/j.ceca.2018.04.004.

Celik, H., Kucukler, S., Ozdemir, S., Comakli, S., Gur, C., Kandemir, F. M., Yardim, A. 2020. Lycopene Protects Against Central And Peripheral Neuropathy By Inhibiting Oxaliplatin-Induced ATF-6 Pathway, Apoptosis, Inflammation And Oxidative Stress In Brains And Sciatic Tissues Of Rats. *Neurotoxicology*. 80: 29-40. doi: 10.1016/j.neuro.2020.06.005.

Chaudhary, P., Sharma, A., Singh, B., dan Nagpal, A..K. 2018 . Bioactivities Of [illegible]als Present In Tomato. *J Food Sci Technol*. 55(8): 2833-2849. [illegible]/s13197-018-3221-z.

[illegible], & Chen, Z. 2019. A review for the pharmacological effect of [illegible] central nervous system disorders. *Biomedicine & [illegible]rapy*. 111(1): 791-801. doi: 10.1016/j.biopha.2018.12.151.

Cherian, D. A., Peter, T., Narayanan, A., Madhavan, S. S., Achammada, S., & Vynat, G. P. 2019. Malondialdehyde As A Marker Of Oxidative Stress In Periodontitis Patients. *Journal Of Pharmacy And Bioallied Sciences*. 11(2): 297-300. doi: 10.4103/JPBS.JPBS_17_19

Collins, E. J., Bowyer, C., Tsouza, A., & Chopra, M. 2022. Tomatoes: An Extensive Review Of The Associated Health Impacts Of Tomatoes And Factors That Can Affect Their Cultivation. *Biology*. 11(2): 239. doi: 10.3390/biology11020239.

Cordiano, R., Di Gioacchino, M., Mangifesta, R., Panzera, C., Gangemi, S., & Minciullo, P. L. 2023. Malondialdehyde As A Potential Oxidative Stress Marker For Allergy-Oriented Diseases: An Update. *Molecules*. 28(16): 1-22. doi: 10.3390/molekul28165979.

Costa, B, & Vale, N. 2023. Understanding Lamotrigine's Role in the CNS and Possible Future Evolution. *Int J Mol Sci*. 24 (7) : 6050. doi: 10.3390/ijms24076050.

Costa, B., & Vale, N. 2023. Understanding Lamotrigine's Role in the CNS and Possible Future Evolution. *International Journal of Molecular Sciences*. 24(7): 6050.

Diniz, T. C., Silva, J. C., Lima-Saraiva, S. R. G. D., Ribeiro, F. P. R. D. A., Pacheco, A. G. M., de Freitas, R. M., Quintans-Júnior, L. J., Quintans, J. D. S. S., Mendes, R. L., & Almeida, J. R. G. D. S. 2015. The role of flavonoids on oxidative stress in epilepsy. *Oxidative medicine and cellular longevity*. 2015: 1-9.

Douglas-Hall P., Dzahini O., Gaughran F., Bile A., Taylor D. 2017. Variation in Dose and Plasma Level of Lamotrigine in Patients Discharged from a Mental Health Trust. *Adv. Psychopharmacol*. 7:17. doi: 10.1177/2045125316672573.

Edinoff, A. N., Nguyen, L. H., Fitz-Gerald, M. J., Crane, E., Lewis, K., Pierre, S. S., Kaye, A. D,. Kaye, A. M., Kaye, JS, Kaye RJ, Gennuso SA, Varrassi G, Viswanath O, Urits I. 2021. Lamotrigine and Stevens-Johnson Syndrome Prevention. *Psychopharmacol Bull*. 16;51(2):96-114.

Emran, T. B., Islam, F., Nath, N., Sutradhar, H., Das, R., Mitra, S., & Sharma, R. 2022. Naringin And Naringenin Polyphenols In Neurological Diseases: Understandings From A Therapeutic Viewpoint. *Life*: 13(1): 99.

ou, S.; Grintzalis, K. 2021. Efficacy of Phytocannabinoids in atment: Novel Approaches and Recent Advances. *Int. J. Public Health*. 18 (8) : 3993.

rvace, F., Faustmann, P. M., & Ismail, F. S. 2022. Effects of nd Topiramate on Glial Properties in an Astrocyte-microglia Co-l of Inflammation. *Int. J. Neuropsychopharmacology*. 25 (3):

185-196.

Faustmann, T. J., Corvace, F., Faustmann, P. M., & Ismail, F. S. 2022. Effects of Lamotrigine and Topiramate on Glial Properties in an Astrocyte-Microglia Co-Culture Model of Inflammation. *Int. J. Neuropsychopharmacol*. 25:185–196.

Font-Nieves M. 2012. Induction of COX-2 Enzyme and Down-Regulation of COX-1 Expression by Lipopolysaccharide (LPS) Control Prostaglandin E2 Production in Astrocytes. *J. Biol. Chem*. 287: 6564–68.

Fu, X. X., Duan, R., Wang, S. Y., Zhang, Q. Q., Wei, B., Huang, T., & Zhang, Y. D. 2023. Lamotrigine Protects Against Cognitive Deficits, Synapse And Nerve Cell Damage, And Hallmark Neuropathologies In A Mouse Model Of Alzheimer's Disease. *Neural Regeneration Research*. 18(1): 189-193.

Gil-Martins, E., Barbosa, D. J., Silva, V., Remião, F., dan Silva, R. 2020. Dysfunction of ABC Transporters at the Blood-Brain Barrier: Role in Neurological Disorders. *J. Pharm. Ther.*

Ho, Y. H., Lin, Y. T., Wu, C. W., Chao, Y. M., Chang, A. Y., and Chan, J. Y. 2015. Peripheral Inflammation Increases Seizure Susceptibility Via The Induction Of Neuroinflammation And Oxidative Stress In The Hippocampus. *J. Biomed. Sci.* 22:46.

Hsiao, G., Fong, T. H., Tzu, N. H., Lin, K. H., Chou, D. S., & Sheu, J. R. 2004. A Potent Antioxidant, Lycopene, Affords Neuroprotection Against Microglia Activation And Focal Cerebral Ischemia In Rats. *In Vivo*. 18(3): 351-356.

Huang, W. C., Wu, S. J., Chen, Y. L., Lin, C. F., & Liou, C. J. 2021. Tomatidine Improves Pulmonary Inflammation In Mice With Acute Lung Injury. *Mediators of inflammation*.

Humaish, H. H. 2016. Study The Antioxidant Effect Of Tomato Extract In Oxidative Stressed Rats. *Bas. J. Vet. Res*. 15(1): 66-80.

Juliastuti, H., Yuslianti, E. R., Rakhmat, I. I., Handayani, D. R., Prayoga, A. M., Ferdianti, F. N., Prastia, H. S., Dara, R. J., Syarifah, S., Rizkani, E. N. 2021. *Sayuran dan Buah Berwarna Merah : Antioksidan Penangkal Radikal Bebas*. Yogyakarta : Deepublish.

Kalilani, L, Sun, X, Pelgrims, B, Noack-Rink, M, & Villanueva, V. 2018. The Epidemiology of Drug-Resistant Epilepsy: A Systematic Review And M[illegible]. *Epilepsia*. 59(12): 2179–2193.

Kadiroğlu P., Kola O., Kesen S., Uçar B., & Çetiner B. 2017. [illegible]mpounds And Antioxidant Potential In Tomato Pastes As [illegible]Hot And Cold Break Process. *Food Chem*. 220:31–41. doi: [illegible]dchem.2016.09.190.

[illegible]avel, R., Natteru, P. A., Selvakumar, G. P., Saeed, D., Zahoor,

H., Zaheer, S., Iyer, S.S., & Zaheer, A. 2016. Neuroinflammation Induces Neurodegeneration. *J Neurol Neurosurg Spine*. 1(1):1003.

Kośmider K., Kamieniak M., Czuczwar S.J., & Miziak B. 2023. Second Generation of Antiepileptic Drugs and Oxidative Stress. *Int. J. Mol. Sci*. 24:3873. doi: 10.3390/ijms24043873.

Kostev, K., Doege, C., Jacob, L., Smith, L., Koyanagi, A., Gollop, C., & Schrag, A. 2023. Association Between Antiepileptic Drugs And Incident Parkinson's Disease Among Patients Followed In German Primary Care Practices. *Brain Sciences*. 13(3): 450.

Kumins NH, Hunt J, Gamelli RL, Filkins JP. 1996. Partial Hepatectomyreduces The Endotoxin-Induced Peak Circulating Level Of Tumor Necrosis Factor In Rats. *Shock*. 5:385–388.

Kurina, A. B., Solovieva, A. E., Khrapalova, I. A., & Artemyeva, A. M. 2021. Biochemical Composition of Tomato Fruits of Various Colors. *Vavilov Journal of Genetics and Breeding*. 25(5): 514-527.

Kusuhara, H., Furuie, H., Inano, A., Sunagawa, A., Yamada, S., Wu, C., Fukizawa, S., Morimoto, N., Leiri, I., Morishita, M., Sumita, K., Mayahara. H., Fujita, T., Maeda, K., & Sugiyama Y. 2012 . Pharmacokinetic Interaction Study Of Sulphasalazine In Healthy Subjects And The Impact Of Curcumin As An In Vivo Inhibitor Of BCRP. *Br. J. Pharmacol*. 166(6):1793-803. 5

Laranjeira, T., Costa, A., Faria-Silva, C., Ribeiro, D., de Oliveira, J.M.P.F., Simões, S., & Ascenso, A. 2022. Sustainable Valorization of Tomato By-Products to Obtain Bioactive Compounds: Their Potential in Inflammation and Cancer Management. *Molecules*. 27(5): 1-19.

Leary, E., Sheth, R. D., & Gidal, B. E. 2018. Time Course of Reversal of Valproate-Mediated Inhibition of Lamotrigine. *Seizure*. 57:76–79. doi: 10.1016/j.seizure.2018.03.003.

Leslie, Citrome. 2009. Adjunctive Lithium And Anticonvulsants For The Treatment Of Schizophrenia: What Is The Evidence?. *Expert Review Of Neurotherapeutics*. 9(1) : 55-71.

Li, H., Zhang, X., Meng, W., & Ge, L. 2017. Visualization Of Tomato Growth Based On Dry Matter Flow. *International Journal of Computer Games Technology.* 1(1): 1-12.

ı, R., Fu, Q., & Ma, S. 2015. The Effects Of Apigenin On haride-Induced Depressive-Like Behavior In Mice. *Neurosci.* -22.

i, M. 2003. Role of P-glycoprotein in pharmacokinetics: clinical *Clin Pharmacokinet*. 42(1):59-98.

Liu, C. B., Wang, R., Pan, H. B., Ding, Q. F, & Lu, F. B. 2013. Effect of lycopene on oxidative stress and behavioral deficits in rotenone induced model of Parkinson's disease. *Zhongguo Ying Yong Sheng Li Xue Za Zhi*. 29(4): 380-4.

Liu, J. S., Wang J. H., Zhou, J., Tang, X. H., Xu, L., Shen, T., Wu, X. Y., dan Hong Z. 2014. Enhanced Brain Delivery of Lamotrigine with Pluronic® P123based Nanocarrier. *Int. J. Nanomed*. 9: 3923-3935.

Lubis, E. R. 2020. *Bercocok Tanam Tomat : Untung Melimpah*. Jakarta: Penerbit Bhuana Ilmu Populer

Maitra, U., Singh, N., Gan, L., Ringwood, L., & Li, L. 2009. IRAK-1 Berkontribusi Terhadap Pembentukan Spesies Oksigen Reaktif Yang Diinduksi Lipopolisakarida Dalam Makrofag Dengan Menginduksi Transkripsi NOX-1 Dan Aktivasi Rac1 Serta Menekan Ekspresi Enzim Antioksidan. *Jurnal Kimia Biologi*. 284 (51): 35403-35411.

Mastronardi, C. A., Yu, W. H., Rettori, V., dan McCann, S. 2000. Lipopolysaccharide-Induced Leptin Release Is Not Mediated By Nitric Oxide, But Is Blocked By Dexamethasone. *Neuroimmunomodulation*. 8(2): 91-7. doi: 10.1159/000026458.

Mazgaeen, L., & Gurung, P. 2020. Recent Advances in Lipopolysaccharide Recognition Systems. *Int. J. Mol. Sci*. 21: 379. doi: 10.3390/ijms21020379.

Milosheska D., Lorber B., Vovk T., Kastelic M., Dolžan V., Grabnar I. 2016. Pharmacokinetics of Lamotrigine and Its Metabolite N-2-glucuronide: Influence of Polymorphism of UDP-glucuronosyltransferases and Drug Transporters. *Br. J. Clin. Pharm*. 82: 399. doi: 10.1111/bcp.12984

Mishra, A., Bandopadhyay, R., Singh, P. K., Mishra, P. S., Sharma, N., & Khurana, N. 2021. Neuroinflammation In Neurological Disorders: Pharmacotherapeutic Targets From Bench To Bedside. *Metabolic Brain Disease*. 36(7): 1591–1626.

Nonaka, N., Hileman, S. M., Shioda, S., Vo, T. Q., Banks, W. A. 2004. Effects Of Lipopolysaccharide On Leptin Transport Across The Blood-Brain Barrier. *Brain Res*. 1016:58–65

Parajuli B. 2012. GM-CSF Increase LPS-Induced Production Of Proinflammatory Mediators Via Upregulation of TLR4 and CD14 in Murine Microglia. *J. nation.* 9: 268.

or, E. M., Castroflorio, E., Soares, T. R., Oliver, P. L., & Rial, D. interconnected mechanisms of oxidative stress and nation in epilepsy. *Antioxidants*, *11*(1): 157.

e Influence Of Systemic Inflammation On Inflammation In The ations For Chronic Neurodegenerative Disease. *Brain Behav*

Immun. 18(5):407-13.

Pracucci, E., Pillai, V., Lamers, D., Parra, R., & Landi, S. 2021. Neuroinflammation: A Signature or a Cause of Epilepsy?. *Int. J. Mol. Sci*. 22(1): 6981.

Rahul, Siddique, Y. H. 2021. Neurodegenerative Diseases and Flavonoids: Special Reference to Kaempferol. *CNS Neurol Disord Drug Targets.* 20(4):327-342.

Rodríguez-Ramírez, K. T, Norte-Muñoz, M., Lucas-Ruiz, F., Gallego-Ortega, A., Calzaferri, F., García-Bernal, D., Martínez, C. M., Galindo-Romero, C., de Los Ríos, C., Vidal-Sanz, M., & Agudo-Barriuso, M. 2024. Retinal Response To Systemic Inflammation Differs Between Sexes And Neurons. *Front Immunol*. Vol 15.

Sheppard, O., Coleman, M. P., & Durrant, C. S. 2019. Lipopolysaccharide-Induced Neuroinflammation Induces Presynaptic Disruption Through A Direct Action On Brain Tissue Involving Microglia-Derived Interleukin 1 Beta. *J Neuroinflammation*.16(1):106.

Skrzypczak-Wiercioch, A., & Sałat, K. 2022. Lipopolysaccharide-Induced Model of Neuroinflammation: Mechanisms of Action, Research Application and Future Directions for Its Use. *Molecules*. 26: 27(17):5481. doi: 10.3390/molecules27175481.

Sofy, A. R., Dawoud, R. A., Sofy, M. R., Mohamed H. I., Hmed, A. A., & El-Dougdoug, N. K. 2020. Improving Regulation Of Enzymatic And Non-Enzymatic Antioxidants And Stress-Related Gene Stimulation In Cucumber Mosaic Cucumovirus-Infected Cucumber Plants Treated With Glycine Betaine, Chitosan And Combination. *Molecules*. 25: 2341. doi: 10.3390/molecules25102341

Tucureanu, M. M., Rebleanu, D., Constantinescu, C. A., Deleanu, M., Voicu, G., Butoi, E., & Manduteanu, I. 2018. Lipopolysaccharide-Induced Inflammation In Monocytes/Macrophages Is Blocked By Liposomal Delivery of Gi-Protein Inhibitor. *International Journal of Nanomedicine*. 13(1): 63-76.

Valgimigli L. 2023. Lipid Peroxidation and Antioxidant Protection. *Biomolecules*. 13(9):1291.

Wang, J., Li, L., Wang, Z., Cui, Y., Tan, X., Yuan, T., & Liu, X. 2018. Supplementation of Lycopene Attenuates Lipopolysaccharide-Induced ```Neuroinflammation and Oxidative Stress. *The Journal Of Nutritional Biochemistry*. 56(1): 16-25.

z-Escobar, A., Han, S., Zhu, P., Wang, J. H., & Sun, Y. 2016. Reduces Inflammatory Response And Ameliorates Executive terioration In An Alzheimer's-Like Mouse Model. *BioMed ernational*.

Cara Mudah Bertanam: 29 Jenis Sayur Dalam Pot. Yogyakarta: .

Wood, P. L. 2003. *Neuroinflammation: Mechanisms and Management*. Second Edition. Humana Press Totowa: New Jersey.

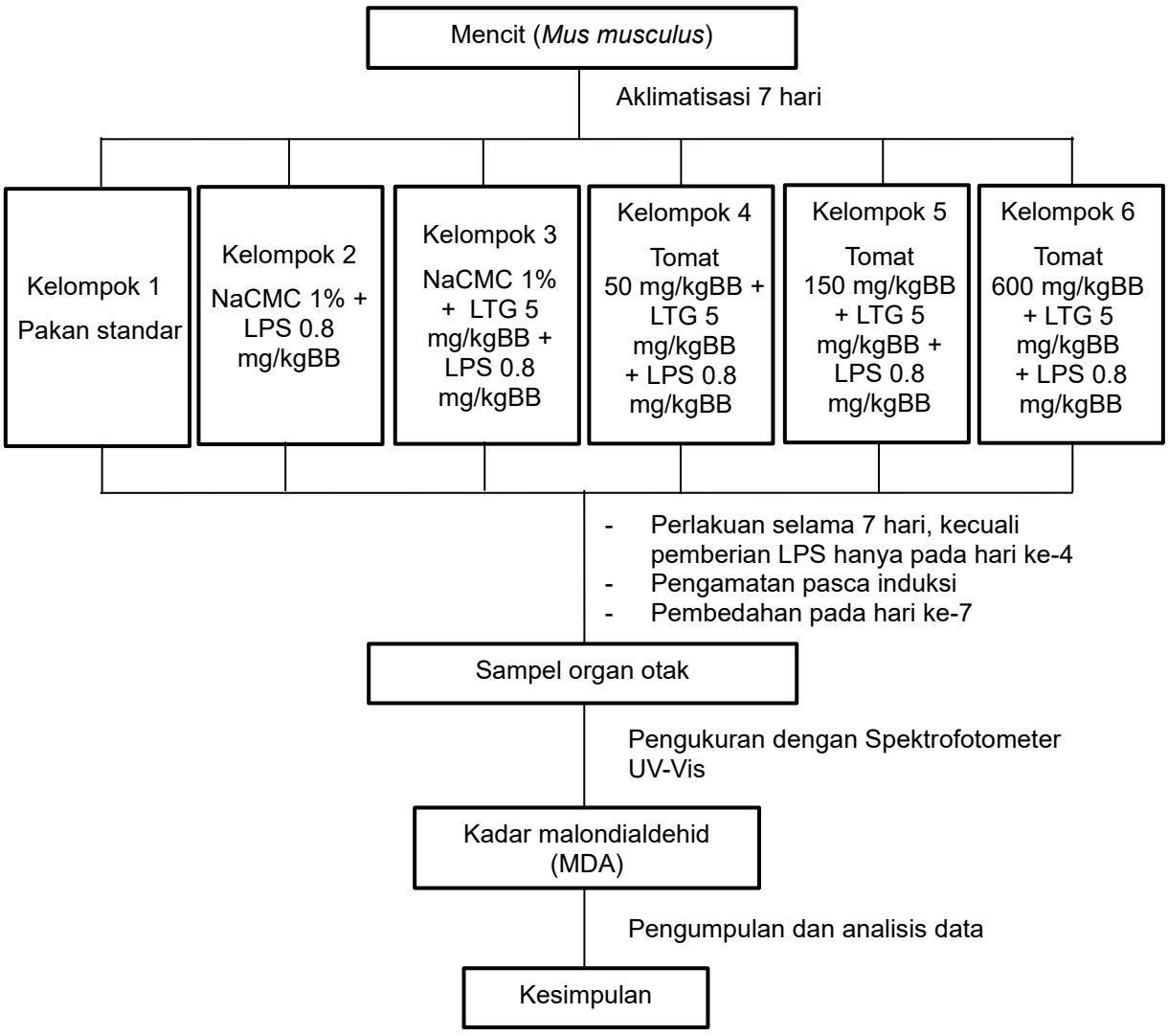
Yang Y, Zhong W, Zhang Y, Cheng Y, Lai H, Yu H, Feng N, Han Y, Huang R, Zhai Q. 2022. Sustained Inflammation Induced by LPS Leads to Tolerable Anorexia and Fat Loss via Tlr4 in Mice. *J Inflamm Res*. 15:5635-5648.

Zhao, J., Bi, W., Xiao, S. 2019. Neuroinflammation Induced By Lipopolysaccharide Causes Cognitive Impairment In Mice. *Sci Rep*. 9: 5790.

Zulkarnain. 2022. *Budidaya Sayuran Tropis*. Jakarta: Budidaya Sayuran Tropis.

LAMPIRAN

Lampiran 1. Skema Kerja



Lampiran 2. Perhitungan

Jika berat mencit dianggap 30 g dan volume pemberian sebanyak 1% dari bobot mencit, maka untuk perhitungan bahan antara lain sebagai berikut.

- **Variasi dosis tomat**

Tomat 50 mg/kgBB = 50 mg/1000 gBB/1 mL
= 1,5 mg/30 gBB/0,3 mL
= 1,5 mg/30 gBB/0,3 mL
= 7,5 mg/1,5 mL (untuk 5 mencit)
= 15 mg/3 mL (dilebihkan untuk 10 mencit)

Tomat 150 mg/kgBB = 150 mg/1000 gBB
= 4,5 mg/30 gBB/0,3 mL
= 4,5 mg/30 gBB/0,3 Ml
= 22,5 mg/1,5 mL (untuk 5 mencit)
= 45 mg/3 mL (dilebihkan untuk 10 mencit)

Tomat 600 mg/kgBB = 600 mg/1000 gBB
= 18 mg/30 gBB/0,3 mL
= 18 mg/30 gBB/0,3 mL
= 90 mg/1,5 mL (untuk 5 mencit)
= 180 mg/3 mL (dilebihkan untuk 10 mencit)

- **Dosis lamotrigin**

LTG 5 mg/kgBB = 5 mg/1000 gBB
= 0,15 mg/30 gBB/0,3 mL
= 0,15 mg/30 gBB/0,3 mL
= 3,75 mg/7,5 mL (untuk 25 mencit)
= 4,5 mg/9 mL (dilebihkan untuk 30 mencit)

- **Dosis lipopolisakarida**

LPS 0,8 mg/kgBB = 0,8 mg/1000 gBB
= 0,024 mg/30 gBB/0,3 mL
= 0,024 mg/30 gBB/0,3 mL
= 0,72 mg/9 mL (untuk 30 mencit)
= 0,96 mg/12 mL (dilebihkan untuk 40 mencit)

Lampiran 3. Data Statistik Hasil Penelitian

Lampiran 3a. Bobot Badan

Tabel 2. Hasil penimbangan bobot badan mencit

Kelompok	Kode	Hari						
		I	II	III	IV	V	VI	VII
K1 (Sehat)	A	24.2	24.2	24	24.9	25	25.1	25.2
	B	26.5	26.7	26.1	26.8	27	27	27.1
	C	25.8	25.8	26	26.1	26.7	26.8	27
	D	24.6	24.7	24.5	24.8	25.2	25	25.3
K2 (LPS)	A	29.6	29.7	28.9	29.1	26.2	26.2	26.7
	B	27.3	28	28.5	28.9	26.4	26.1	27.9
	C	29.3	29.2	28.2	28.6	26	25	26.1
K3 (LTG + LPS)	A	27.3	27.8	28.7	28.7	25.4	26.5	26.7
	B	31.8	31.4	31.2	32.3	28.7	29	31.3
	C	30.1	29.2	29.6	29.3	27	27.6	28.6
K4 (Tomat 150 + LTG + LPS)	A	31.6	30.6	30	30.9	28	28	30.3
	B	30.1	29.9	29.7	30.8	27.5	26	26.6
	C	29.6	26.9	29.3	29.5	26.4	26.6	26
	D	27.3	26.8	27.7	29.7	26	24.9	24.7
K5 (Tomat 150 + LTG + LPS)	A	31	29.3	29.7	30.8	28.7	29.4	29.4
	B	28	27.9	28.7	28.5	27.2	27	27.8
	C	24.7	23.2	24.9	26.5	23.9	24	24.7
	D	25.5	30	30.4	31.8	29.6	28.4	29.6
K6 (Tomat 600 + LTG + LPS)	A	24.7	24.5	24.7	26.2	23.4	23.2	22.8
	B	24.1	24.3	22.8	23.3	21.2	21.1	21.7
	C	29.5	29.6	29.5	28.1	25.7	25.4	25.2

Tabel 3. *Descriptive statistic* data bobot badan mencit

	Perlakuan	Mean	Std. Deviation	N
DAY 1	Sehat	25.2750	1.06262	4
	LPS	31.1333	2.91947	3
	LPS+LTG	29.7333	2.27230	3
	Tomat 50	29.6500	1.78232	4
	Tomat 150	27.3000	2.83901	4
	Tomat 600	26.1000	2.95973	3
	Total	27.7429	2.55628	21
DAY 2	Sehat	25.3500	1.12101	4
		31.0333	2.75379	3
		29.4667	1.81475	3
		28.5500	1.98410	4
	0	27.6000	3.06050	4
	0	26.1333	3.00389	3
		27.6048	2.41049	21

Lanjutan Tabel 3.

	Perlakuan	Mean	Std. Deviation	N
DAY 3	**Sehat**	25.1500	1.05987	4
	LPS	30.4333	3.28075	3
	LPS+LTG	29.8333	1.26623	3
	Tomat 50	29.1750	1.02429	4
	Tomat 150	28.4250	2.45136	4
	Tomat 600	25.6667	3.45302	3
	Total	27.7667	2.41564	21
DAY 4	**Sehat**	25.6500	0.96782	4
	LPS	30.9667	3.67469	3
	LPS+LTG	30.1000	1.92873	3
	Tomat 50	30.2250	0.72744	4
	Tomat 150	29.4000	2.37627	4
	Tomat 600	26.0333	2.46847	3
	Total	28.3857	2.39568	21
DAY 5	**Sehat**	25.9750	1.02103	4
	LPS	28.0667	3.40783	3
	LPS+LTG	27.0333	1.65025	3
	Tomat 50	26.9750	0.93229	4
	Tomat 150	27.3500	2.50400	4
	Tomat 600	23.4333	2.25019	3
	Total	26.2476	1.91171	21
DAY 6	**Sehat**	25.9750	1.07199	4
	LPS	27.8333	3.91450	3
	LPS+LTG	27.7000	1.25300	3
	Tomat 50	26.3750	1.29196	4
	Tomat 150	27.2000	2.34947	4
	Tomat 600	23.2333	2.15019	3
	Total	26.1095	1.95139	21
DAY 7	**Sehat**	26.1500	1.04083	4
	LPS	28.5333	3.70720	3
	LPS+LTG	28.8667	2.31157	3
	Tomat 50	26.9000	2.40139	4
	Tomat 150	27.8750	2.26477	4
	Tomat 600	23.2333	1.78979	3
	Total	26.7000	2.36495	21

Tabel 4. Hasil uji normalitas data bobot badan mencit

Tests of Normality	PERLAKUAN	Shapiro-Wilk		
		Statistic	df	Sig.
Standardized Residual for DAY1	Sehat	0.936	4	0.628
	LPS	0.793	3	0.098
	LPS+LTG	0.980	3	0.732
	Tomat 50	0.969	4	0.834
	Tomat 150	0.931	4	0.603
	Tomat 600	0.832	3	0.194
Standardized Residual for DAY2	Sehat	0.959	4	0.771
	LPS	0.824	3	0.174
	LPS+LTG	0.984	3	0.756
	Tomat 50	0.819	4	0.142
	Tomat 150	0.857	4	0.248
	Tomat 600	0.778	3	0.064
Standardized Residual for DAY3	Sehat	0.850	4	0.227
	LPS	0.836	3	0.204
	LPS+LTG	0.975	3	0.694
	Tomat 50	0.862	4	0.268
	Tomat 150	0.864	4	0.274
	Tomat 600	0.941	3	0.532
Standardized Residual for DAY4	Sehat	0.882	4	0.346
	LPS	0.806	3	0.130
	LPS+LTG	0.871	3	0.298
	Tomat 50	0.826	4	0.158
	Tomat 150	0.956	4	0.756
	Tomat 600	0.945	3	0.549
Standardized Residual for DAY5	Sehat	0.843	4	0.205
	LPS	0.775	3	0.056
	LPS+LTG	1.000	3	0.967
	Tomat 50	0.930	4	0.596
	Tomat 150	0.923	4	0.554
	Tomat 600	1.000	3	0.975
Standardized Residual for DAY6	Sehat	0.797	4	0.096
	LPS	0.869	3	0.294
	LPS+LTG	0.995	3	0.868
	Tomat 50	0.993	4	0.974
	Tomat 150	0.939	4	0.650
	Tomat 600	1.000	3	0.974
Standardized Residual for DAY7	Sehat	0.776	4	0.066
	LPS	0.817	3	0.155
	LPS+LTG	0.990	3	0.809
	Tomat 50	0.901	4	0.437
	Tomat 150	0.858	4	0.253
	Tomat 600	0.956	3	0.597

Tabel 5. Hasil analisis *Pairwise Comparisons* data bobot badan mencit

Perlakuan	(I) DAY	(J) DAY	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
						Lower Bound	Upper Bound
K1 (Sehat)	1	2	-.075	.710	1.000	-2.665	2.515
	2	3	.200	.417	1.000	-1.321	1.721
	3	4	-.500	.427	1.000	-2.057	1.057
	4	5	-.325	.230	1.000	-1.165	.515
	5	6	.000	.285	1.000	-1.041	1.041
	6	7	-.175	.395	1.000	-1.617	1.267
K2 (LPS)	1	2	.100	.816	1.000	-2.877	3.077
	2	3	.600	.464	1.000	-1.091	2.291
	3	4	-.533	.500	1.000	-2.358	1. 291
	4	5	2.900*	.270	>0.0001	1.483	1.017
	5	6	.233	.343	1.000	-.768	1.635
	6	7	-.700	.441	1.000	-2.310	.910
K3 (LTG + LPS)	1	2	.267	.820	1.000	-2.724	3.257
	2	3	-.367	.482	1.000	-2.123	1.390
	3	4	-.267	.493	1.000	-2.065	1.532
	4	5	3.067*	.266	>0.0001	2.097	4.036
	5	6	-.667	.329	1.000	-1.868	.535
	6	7	-1.167	.456	.461	-2.832	.498
K4 (LTG + Tomat 50 + LPS)	1	2	1.100	.710	1.000	-1.490	3.690
	2	3	-.625	.417	1.000	-2.146	.896
	3	4	-1.050	.427	.558	-2.607	.507
	4	5	3.250*	.230	>0.0001	2.410	4.090
	5	6	.600	.285	1.000	-.441	1.641
	6	7	-.525	.395	1.000	-1.967	.917
K5 (LTG+Tomat 150 + LPS)	1	2	-.300	.710	1.000	-2.890	2.290
	2	3	-.825	.417	1.000	-2.346	.696
	3	4	-.975	.427	.785	-2.532	.582
	4	5	2.050*	.230	>0.0001	1.210	2.890
	5	6	.150	.285	1.000	-.891	1.191
	6	7	-.675	.395	1.000	-2.117	.767
K6 (LTG + Tomat 600 + LPS)	1	2	-.033	.820	1.000	-3.024	2.957
	2	3	.467	.482	1.000	-1.290	2.223
	3	4	-.367	.493	1.000	-2.165	1.432
	4	5	2.600*	.266	>0.0001	1.630	3.570
	5	6	.200	.329	1.000	-1.002	1.402
		7	-3.553E-14	.456	1.000	-1.665	1.665

marginal means

ce is significant at the .05 level.

ltiple comparisons: Bonferroni.

Lampiran 3b. Kadar MDA

Tabel 6. Hasil pengukuran kurva standar MDA

Kode	Konsentrasi (µg/mL)	Absorbansi
Baku 1	0.100	0.148
Baku 2	0.200	0.275
Baku 3	0.400	0.519
Baku 4	0.800	0.939
Baku 5	1.600	1.900

Tabel 7. Hasil pengukuran kadar MDA

Kelompok	Kode	Konsentrasi (µg/mL)	Absorbansi
K1 (Sehat)	K1.A	0.541	0.665
	K1.B	0.576	0.705
	K1.C	0.600	0.733
	K1.D	0.641	0.780
K2 (LPS)	K2.A	0.727	0.880
	K2.B	0.684	0.830
	K2.C	0.918	1.102
K3 (LTG+LPS)	K3.A	0.672	0.817
	K3.B	0.589	0.721
	K3.C	0.541	0.665
K4 (Tomat 50 + LTG + LPS)	K4.A	0.514	0.633
	K4.B	0.514	0.633
	K4.C	0.449	0.558
	K4.D	0.485	0.600
K5 (Tomat 150 + LTG + LPS)	K5.A	0.465	0.576
	K5.B	0.569	0.697
	K5.C	0.477	0.590
	K5.D	0.443	0.551
K6 (Tomat 600 + LTG + LPS)	K6.A	0.707	0.857
	K6.B	0.755	0.913
	K6.C	0.602	0.735

Tabel 8. *Descriptive statistic* data kadar MDA

Descriptive Statistic	K1	K2	K3	K4	K5	K6
Number of values	4	3	3	4	4	3
Minimum	0.5410	0.6840	0.5410	0.4490	0.4430	0.6020
Median	0.5880	0.7270	0.5890	0.4995	0.4710	0.7070
Maximum	0.6410	0.9180	0.6720	0.5140	0.5690	0.7550
	0.5895	0.7763	0.6007	0.4905	0.4885	0.6880
	0.04202	0.1246	0.06627	0.03086	0.05548	0.07825
	0.02101	0.07191	0.03826	0.01543	0.02774	0.04518

Tabel 9. Hasil uji normalitas data kadar MDA

Test for normal distribution (Shapiro-Wilk test)	K1	K2	K3	K4	K5	K6
W	0.9983	0.8823	0.9768	0.8575	0.8499	0.9558
P value	.995	.331	.708	.251	.226	.595
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns	ns

Tabel 10. Hasil analisis *One Way Anova* data kadar MDA

ANOVA summary	
F	9.237
P value	0.0004
P value summary	***
Significant diff. among means (P < 0.05)?	Yes
R squared	0.7548

Tabel 11. Hasil uji *Dunnet's Multiple Comparisons* data kadar MDA

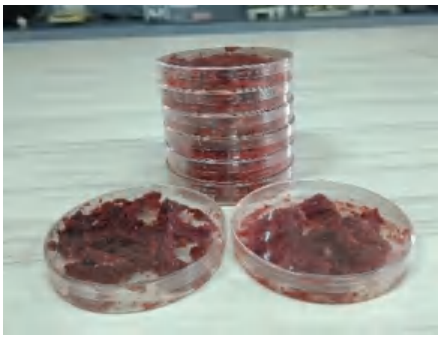
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary	Adjusted P Value
K2 vs. K1	0.1868	0.04141 to 0.3323	Yes	*	0.0106
K2 vs. K3	0.1757	0.02021 to 0.3311	Yes	*	0.0248
K2 vs. K4	0.2858	0.1404 to 0.4313	Yes	***	0.0003
K2 vs. K5	0.2878	0.1424 to 0.4333	Yes	***	0.0003
K2 vs. K6	0.08833	-0.06713 to 0.2438	No	ns	0.3872

Lampiran 4. Dokumentasi Penelitian

Gambar 5. Penyiapan sampel buah tomat

Gambar 6. Pembuatan konsentrat buah tomat

Gambar 7. *Freeze drying*



Gambar 8. Hasil pembuatan konsentrat buah tomat

Gambar 9. Penyiapan dan aklimatisasi hewan uji

Gambar 10. Penimbangan bahan

Gambar 11. Pembuatan larutan koloidal NaCMC 1%

Gambar 12. Pembuatan larutan uji *in vivo*

Gambar 13. Perlakuan hewan uji (uji *in vivo*)

Gambar 14. Penimbangan bobot badan mencit

Gambar 15. Pembedahan hewan uji

Gambar 16. Penyiapan kurva baku MDA

Gambar 17. Inkubasi sampel MDA di *waterbath*

Gambar 18. Pengukuran kadar MDA menggunakan spektroforometer UV-Vis

Lampiran 5. Rekomendasi Persetujuan Etik

KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN
KOMITE ETIK PENELITIAN UNIVERSITAS HASANUDDIN
RSPTN UNIVERSITAS HASANUDDIN
RSUP Dr. WAHIDIN SUDIROHUSODO MAKASSAR
Sekretariat : Lantai 2 Gedung Laboratorium Terpadu
JL.PERINTIS KEMERDEKAAN KAMPUS TAMALANREA KM.10 MAKASSAR 90245.
Contact Person: dr. Agussalim Bukhari.,MMed,PhD, SpGK TELP. 081241850858, 0411 5780103, Fax : 0411-581431

REKOMENDASI PERSETUJUAN ETIK
Nomor : 671/UN4.6.4.5.31/ PP36/ 2023

Tanggal: 12 September 2023

Dengan ini Menyatakan bahwa Protokol dan Dokumen yang Berhubungan Dengan Protokol berikut ini telah mendapatkan Persetujuan Etik :

No Protokol	UH23080565	No Sponsor	
Peneliti Utama	**Putri Diah Anggini, RH**	Sponsor	
Judul Peneliti	Studi Interaksi Obat dan Makanan: Eksplorasi Buah Tomat bersama Lamotrigin sebagai Strategi Baru Antiepilepsi melalui Penghambatan Transporter P-glikoprotein (P-gp)		
No Versi Protokol	2	Tanggal Versi	**11 September 2023**
No Versi PSP		Tanggal Versi	
Tempat Penelitian	Laboratorium Fakultas Farmasi Universitas Hasanuddin Makassar		
Jenis Review	[ ] Exempted [x] Expedited [ ] Fullboard Tanggal	Masa Berlaku **12 September 2023** sampai **12 September 2024**	Frekuensi review lanjutan
Ketua KEP Universitas Hasanuddin	Nama **Prof. dr. Muh Nasrum Massi,PhD,SpMK(K)**	Tanda tangan	
Sekretaris KEP Universitas Hasanuddin	Nama **dr. Firdaus Hamid, PhD, SpMK(K)**	Tanda tangan	

Kewajiban Peneliti Utama:

- Menyerahkan Amandemen Protokol untuk persetujuan sebelum di implementasikan
- ... SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan Lapor SUSAR dalam 72 ... tama menerima laporan
- ...n Kemajuan (progress report) setiap 6 bulan untuk penelitian resiko tinggi dan setiap ...an resiko rendah
- ... akhir setelah Penelitian berakhir
- ...ungan dari protokol yang disetujui (protocol deviation / violation)
- ...uran yang ditentukan