

DAFTAR PUSTAKA

- Abdulkadir. W., Robert, T., 2018. The effect of sea cucumber (*holothuria scabra*) extract as hepatoprotective: histopathological study. Asian Journal Pharm Clin Res. 11(9), 391-393. doi: 10.22159/ajpcr.2018.v11i9.27747.
- Akash, M.A., Rajab H.A., Al-Assaf, N., 2022. Protective effect of *urtica dioica* in liver and kidney damages induce by ethylene glycol in rabbits: a histopathological study. Iraqi Journal of Veterinary Sciences. 36 (1), 167-170. doi: 10.33899/ijvs.2021.129606.1666.
- Ali, K.F., Arindam, M., , Sanhati, D.R .,2023. Insight into the mechanism of steroidal and non-steroidal anti-inflammatory drugs. Journal of How Synthetic Drugs Work. 61-94. doi: [10.1016/B978-0-323-99855-0.00004-X](https://doi.org/10.1016/B978-0-323-99855-0.00004-X).
- Allison, R., Guraka, A., Shawa, I. T., Tripathi, G., Moritz, W., Kermanizadeh, A., 2023. Drug induced liver injury. Journal of Toxicology and Environmental Health, Part B. 26(8), 442-467. doi: 10.1080/10937404.2023.2261848.
- Alkharji , K.I., Abdul, R., Abdul, A.N., Fatimah, S.Z., 2021. Histological changes in the kidney and liver associated with administration of ethylene glycol in domestic pigeons (*Columba liviadomestica*). Tikrit Journal for Agricultural Sciences.21 (3), 106-111. doi: [10.25130/tjas.21.3.13](https://doi.org/10.25130/tjas.21.3.13).
- Amalina, N, 2009. Uji toksisitas akut ekstrak valerian (*Valetiana officinalis*) Terhadap Hepar mencit Balb/C. Karya Tulis Ilmiah. Fakultas Kedokteran, Universitas Diponegore Semarang.
- Amin , B., Hanieh, M. F., 2015. Protective effects of the aqueous extract of crocus sativus against ethylene glycol induced nephrolithiasis in rats. Excli J.Mar 12(14), 411-22. doi: 10.17179/excli2014-510.
- Andriansyah, M. F., Fitriah, D. J. S., 2025. Pengaruh pemberian madu hutan terhadap gambaran makroskopis dan mikroskopis hati rattus norvegicus yang diinduksi aspartam. Jurnal Ilmiah Permas. 15 (1). ps://doi.org/10.32583/pskm.v15i1.2358.
- antoso, K., Kusumorini, N., Satyaningtijas, A. S., & Supiyani, 7. Determinasi pemberian sukrosa terhadap kadar sgpt dan is galur wistar sebagai indikator fungsi hati. *Bioma*. 12(1). doi: [10.32583/pskm.v15i1.2358](https://doi.org/10.32583/pskm.v15i1.2358).



- Anitha, K., Mohan, L. S., Satyanarayana, S. V., 2020. Antidiabetic, lipid lowering and antioxidant potentiating effect of *Canavalia* species in high fat diet-streptozotocin induced model. *Advan Tradition Med.* 20(4):609–18. doi:10.4103/pr.pr_46_19.
- Bakri, M., Balqis, U., Tuzzahra, R., 2018. Gambaran histopatologi paru-paru babi hutan (*Sus scrofa*) yang terinfeksi parasit internal di kawasan Lhoknga Aceh Besar. *Jimvet*, 2(4): 564-575. doi: [g/10.21157/jimvet.v2i4.9412](https://doi.org/10.21157/jimvet.v2i4.9412).
- Bordbar S, Anwar F, Saari N., 2011. High-value components and bioactives from sea cucumbers for functional foods--a review. *Mar Drugs*. 9(10), 1761-1805. doi: 10.3390/md9101761.
- BPOM, 2022. Pedoman mitigasi risiko cemaran etilen glikol (eg) dan dietilen glikol (deg) pada pangan olahan. Badan Pengawas Obat Dan Makanan RI; Jakarta.
- Chaitanya, D., Challa, S. R., & Reddy, A., 2012. Hepatoprotective effect of biherbal ethanolic extract against paracetamol- induced hepatic damage in albino rats. *Journal of Ayurveda and Integrative Medicine*, 3(4), 198–203. doi: 10.4103/0975-9476.104436.
- Cichoz., Lach, H., Michalak, A., 2014. Oxidative stress as a crucial factor in liver diseases. *World journal of gastroenterology : WJG*, 20: 8082-8091. doi: [10.378/wjg.v20.i25.8082](https://doi.org/10.378/wjg.v20.i25.8082).
- Dakrory A.I., Fahmy S.R., Soliman A.M., Mohamed A.S., Amer S.A.M., 2015. Protective and curative effects of the sea cucumber extract against DMBA-induced Hepatorenal diseases in rats. *BioMed Res. Int.* 563652. doi: [10.1155/2015/563652](https://doi.org/10.1155/2015/563652).
- Dewi, L., Roostantia., Indrawati., 2024. Anti-inflammatory and antioxidant effects of sea cucumber extract in mitigating hepatic TNF- α elevation induced by high-fat diet. *Multidiscip Science Journal* . 7(5). doi: 10.31893/multiscience.2025242.
- Djabir, Y., Adnan, J., Amaliah, N., Ramli, N., Sartini, S., Mamada, S., Usmar, U., 2021. Roselle (*Hibiscus sabdariffa* L.) calyx water extract ameliorates isoniazid and rifampicin induced liver and renal injuries in rats. *J Pharmol Pharmacol*, 10(3), 296-303. doi: [10.34172/jhp.2021.34](https://doi.org/10.34172/jhp.2021.34).
- N. F., agia, H., 2014. Does ginger extract protect against α glycol induced hepatic toxicity in adult male albino rats. *Journal of Basic Science and Medicine*. 3(2), 17-25. doi: [10.21923/j.medicine.20140302.01](https://doi.org/10.21923/j.medicine.20140302.01).



- Esmat A.Y., Said M.M., Soliman A.A., El-Masry K.S.H., Badiea E.A., 2013. Bioactive compounds, antioxidant potential, and hepatoprotective activity of sea cucumber (*Holothuria atra*) against thioacetamide intoxication in rats. *Nutrition*. 29:258–267. doi: 10.1016/j.nut.2012.06.004.
- Fortes R.C., 2017. Nutritional implications in chronic liver diseases. *Journal of Liver Research, Disorders & Therapy*. 3(5), 00071. doi : 10.15406/jlrtd.2017.03.0007.
- Gonfa, T., Teketle, S., Kiros, T., 2020. Effect of extraction solvent on qualitative and quantitative analysis of major phyto-constituents and in-vitro antioxidant activity evaluation of *Cadaba rotundifolia* Forssk leaf extracts. *Cogent Food & Agriculture*, 6(1), 1853867. doi: [10.1080/23311932.2020.1853867](https://doi.org/10.1080/23311932.2020.1853867).
- Gummin, D. D., Mowry, J. B., Beuhler, M. C., Spyker, D. A., Bronstein, A. C., Rivers, L. J., Pham, N. P. T., Weber, J., 2021. Annual report of the american association of poison control centers' national poison data system (npds): 38th annual report. *Clinical Toxicology*, 59(12), 1282-1501. doi: [10.1080/15563650.2021.1989785](https://doi.org/10.1080/15563650.2021.1989785).
- Hossain A., Senadheera RLT, Dave D., Shahidi F., 2022. Profil fenolik tentakel teripang atlantik dan sifat biologisnya. *Food Res. Int.* 20(8), 521. doi: 10.1016/j.foodres.
- Ibadi, E. A. , Yousef, M. I. , Kamel, M. A. E. , & El-Banna, S., 2023. Hepatotoxicity of polyethylene glycol and possible protection using moringa oleifera leaves extract (mole). *Journal of Medicinal and Chemical Sciences*. 6(4), 907-919. doi: 10.26655/JMCHEMSCI.2023.4.23.
- Kany, S., Vollrath, J. T., & Relja, B., 2019. Cytokines in inflammatory disease. *International Journal of Molecular Sciences*. 20(23), 6008. doi: [10.3390/ijms20236008](https://doi.org/10.3390/ijms20236008).
- Karnila, R., 2020. Monograf asam amino bebas kulit teripang pasir. Oceanum Press, Riau.



S., Singla, S.K., 2016. Potential protective effect of apocynin lene glycol-induced hepatic damage by attenuation of ndrial oxidative stress. *Asian J Pharm Clin Res*. 9 (1), 154-

anthiyal, M., Singh, A., 2016. Characterization of silver rticles synthesized using urtica dioica leves and their

synergistic effects with antibiotics. J Radiat Res Appl Sci. 9(3), 217-227. doi: 10.1016/j.jrras.2015.10.002.

Kuttiappan, A., Santenna, C., Murugesan, V., 2024. Hepatoprotective effect of flavonoid rich fraction of sesbania grandiflora: results of in vivo, in vitro, and molecular docking studies. Journal of Ayurveda and Integrative Medicine. 15(5), 101036 2.5. doi: [10.1016/j.jaim.2024.101036](https://doi.org/10.1016/j.jaim.2024.101036).

Lailatul N.F., Diana L.Y., Mudjiwijono H., 2015. Efek pemberian asam alfa lipoat terhadap kadar MDA dan gambaran histologi pada hati tikus model diabetes melitus tipe 1. Jurnal Kedokteran Brawijaya. 28(3),170-177. doi:[10.21776/ub.jkb.2015.028.03.2](https://doi.org/10.21776/ub.jkb.2015.028.03.2).

Li, X., Beibei, Z., Lu, W., Yingcai, Y., 2022. Sea cucumber saponins derivatives alleviate hepatic lipid accumulation effectively in fatty acids-induced hepg2 cells and orotic acid-induced rats. Mar. Drugs. 20(11), 703. doi: <https://doi.org/10.3390/md20110703>.

Liao, Y., Fei, L., Tianwen, Q., Chuan, W., Jike, L., 2024. Flavonoids in natural products for the therapy of liver diseases: progress and future opportunities. Journal frontiers In Pharmacology. 15(1). doi: [10.3389/fphar.2024.1485065](https://doi.org/10.3389/fphar.2024.1485065).

Li, X., Zeng ,B., Wen, L., Zhao, Y., Li, Z., Xue, C., Zhang, T., Wang, Y., 2022. SSea cucumber saponins derivatives alleviate hepatic lipid accumulation effectively in fatty acids-induced hepg2 cells and orotic acid-induced rats. Mar Drugs. 20(11),703. doi: [10.3390/md20110703](https://doi.org/10.3390/md20110703).

Liang, Q., Ahmed, F., Zhang, M., Sperou, N., Franco, C. M. M., Feng, Q., & Zhang, W., 2022. In vivo and clinical studies of sea cucumber-derived bioactives for human health and nutrition. *Frontiers in Marine Science*, 9, 917857. doi: [10.3389/fmars.2022.917857](https://doi.org/10.3389/fmars.2022.917857).

Mandasari, A.Y., Sri , P.A.W., Win, D., 2015. Acute toxicity test of polysaccharides krestin from coriolus versicolor extract with parameters of hepatocyte damages, sgpt and sgot enzyme in mice. Jurnal Sains Veteriner. Vol 33 (1). doi: [10.22146/jsv.8108](https://doi.org/10.22146/jsv.8108).



Mutuguly., 2016. Paparan ekstrak teripang pasir (holothuria) terhadap gambaran histopatologi hati mencit (mus). Jurnal Biopendix. Vol 2 (2). doi: [10.21801/biopendixvol2issue2page160-169](https://doi.org/10.21801/biopendixvol2issue2page160-169).

Muliawan, As.,Suryadi, I. A., 2012. Proses penyembuhan dan penanganan luka. Ilmu Penyakit Bedah Fakultas Kedokteran Universitas Udayana, Denpasar.

Pranweerapaiboon K., Apisawetakan S., Nobsathian S., Itharat A., Sobhon P., Chaithirayanon K., 2020. Fraksi etil-asetat dari *holothuria scabra* memodulasi peradangan secara in vitro dengan menghambat produksi oksida nitrat dan sitokin pro-inflamasi melalui jalur nf-kb dan jnk. *inflammopharmacology*. Journal of I nflammo Pharmacology. 28, 1027–1037. doi: 10.1007/s10787-019-00677-3.

Price S. A., Wilson, L. M., 2006. Patofisiologi konsep klinis proses-proses penyakit. EGC, Jakarta.

Najiyah, F., Dyah, H., 2021. Effect of feeding the sea cucumber (*holothuria leucospilota*) against hepatic morphometric and hepatosomatic index mice (*mus musculus*) due to drinking mixed alcohol. *LenteraBio*. 10 (3) : 251-259 .

Neumann, N., Honke, M., Povydysh, M., Guenther, S., Schulze, C., 2022. Vvaluating tannins and flavonoids from traditionally used medicinal plants with biofilm inhibitory effects against mrgn e. coli. *Journal of Molecules*, 27(7), 2284. doi: 10.3390/molecules27072284.

Neumann, N., Honke, M., Povydysh, M., Guenther, S., Schulze, C., 2022. Vvaluating tannins and flavonoids from traditionally used medicinal plants with biofilm inhibitory effects against mrgn e. coli. *molecules*, 27(7). <https://doi.org/10.3390/molecules27072284>.

Nimah, S., Trianto., 2012. Uji bioaktivitas ekstrak *holothuria scabra* (*holothuria scabra*) terhadap bakteri *pseudomonas aeruginosa* dan *bacillus cereus*. *Jurnal perikanan*. Vol 1 (2).

Prasetyo, Y. E., Merdana, I. M., Karden, I. M dan Sudira, I. W., 2019. perubahan histopatologi hati mencit yang diberikan ekstrak etanol tanaman sarang semut *buletin veteriner udayana*. 11(1), 44-50.

Rai, S., Kafle, A., Devkota, H. P., Bhattarai, A., 2023. Characterization of saponins from the leaves and stem bark of *Jatropha curcas* L. for surface-active properties. *Heliyon*, 9(5), e15807. [//doi.org/10.1016/j.heliyon.2023.e15807](https://doi.org/10.1016/j.heliyon.2023.e15807).



M., Masteria Y., Putra., Ratih, P., Iskandar , A., Harahap., , U., Sari, B., M, S., 2020. Evaluation of nutritional value of imber *holothuria scabra* cultured in bali, indonesia. *AACL* 3 (4).

- Sabdoningrum, E. K., Hidanah, S., Chusniati, S., 2021. Characterization and phytochemical screening of meniran (*phyllanthus niruri* linn) extract's nanoparticles used ball mill method. *Pharmacognosy Journal*. 13(6). doi: 10.1002/jemt.23554.
- Siauta, D., Adrien, Jems, A.U., Veince, B., Silahooy., 2021. The effectiveness of infusion of clove leaves (*syzygium aromaticum* l.) on the levels of sgpt and sgot in the blood of rats (*rattus norvegicus*) exposed to cigarette smoke. *Journal of Biological Education*. 13(2).
- Simorangkir., Lewi, T., 2023. Peran fomepizole dalam penanganan intoksikasi etilen glikol dan dietilen glikol. *Journal Islamic Pharm*. Vol 8(1). doi: [10.18860/jip.v8i1.20790](https://doi.org/10.18860/jip.v8i1.20790)
- Singh, R., Arain, E., Buth, A., 2016. Mental status and the lessons learned from management of the disease in the acute setting. *Case Rep Crit Care*. DOI: <https://doi.org/10.1155/2016/9157393>.
- Sommerfeld-Klatta, K., Lukasik-Głębocka, M., Zielińska-Psuja, B., 2022. Oxidative stress and biochemical indicators in blood of patients addicted to alcohol treated for acute ethylene glycol poisoning. *Hum Exp Toxicol*, 41, 9603271211061502. doi:10.1177/09603271211061502
- Sugihartini, N., Fajri, M. A., 2016. Gambaran histopatologi organ hati dan Balb/C setelah pemberian krim ekstrak teh hijau (*Camellia sinensis*). *Jurnal Farmasi dan Ilmu Kefarmasian Indonesia*. 3(1): 32-38. doi: [10.20473/jfiki.v3i12016.32-38](https://doi.org/10.20473/jfiki.v3i12016.32-38).
- Wang, MJ., Chen, F., Lau, J., 2017. Hepatocyte polyploidization and its association with pathophysiological processes. *Cell Death Dis* 8, e2805. doi10.1038/cddis.2017.167
- Wilkinso,P.D., Duncan, A.W, 2020. Differential roles for diploid and polyploid hepatocytes in acute and chronic liver injury. *Semin Liver Dis*. 41(1), 42-49. doi: 10.1055/s-0040-1719175.



Wargasetia T L., Ratnawati, H., Widodo, N., Widyananda, M.H., 2023. Antioxidant and anti-inflammatory activity of sea cucumber (*Stolidia scabra*) active compounds against keap1 and inos 1. *Bioinform Biol Insights*.doi: 10.1002/bbi.2777/11779322221149613.