

## DAFTAR PUSTAKA

- Abdelbasset, W. K., Tantawy, S. A., Kamel, D. M., Alqahtani, B. A., Elnegamy, T. E., Soliman, G. S., & Ibrahim, A. A. (2020). Effects of high-intensity interval and moderate-intensity continuous aerobic exercise on diabetic obese patients with nonalcoholic fatty liver disease: A comparative randomized controlled trial. *Medicine*, 99(10), e19471.
- Agrawal, S., Dhiman, R. K., & Limdi, J. K. (2016). Evaluation of abnormal liver function tests. In *Postgraduate Medical Journal* (Vol. 92, Issue 1086, pp. 223–234). BMJ Publishing Group.
- Assam, A. J., Dzoyem, J., Pieme, C., & Penlap, V. (2010). In vitro antibacterial activity and acute toxicity studies of aqueous-methanol extract of *Sida rhombifolia* Linn. (Malvaceae). *BMC complementary and alternative medicine*, 10, 40.
- Balamurugan K. (2019). Evaluation of Hepato-Protective Activity in the Ethanolic Extract of *Sida rhombifolia* Linn. against Paracetamol-Induced Hepatic Injury in Albino Rats. In *Article in Research Journal of Pharmaceutical, Biological and Chemical Sciences*.
- Barret, K. E., Barman S. M., Brooks H. L., Yuan J. X. (2009). Ganong's Review of Medical Physiology. 25th ed. New York: McGraw-Hill Education.
- Buzzetti, E., Pinzani, M., & Tsochatzis, E. A. (2016). *The multiple-hit pathogenesis of non-alcoholic fatty liver disease (NAFLD)*. *Metabolism: Clinical and Experimental*, 65(8), 1038–1048.
- Chalasani, N., Younossi, Z., Lavine, J. E., Charlton, M., Cusi, K., Rinella, M., Harrison, S. A., Brunt, E. M., & Sanyal, A. J. (2018). The diagnosis and management of nonalcoholic fatty liver disease: Practice guidance from the American Association for the Study of Liver Diseases. *Hepatology*, 67(1), 328–357.
- Chaturvedi, P., Kwape, T. E. (2015). Attenuation of Diabetic Conditions by *Sida rhombifolia* in Moderately Diabetic Rats and Inability to Produce Similar Effects in Severely Diabetic Rats. *Journal of pharmacopuncture*, 18(4), 12–19.
- Chaves, O. S., Teles, Y. C. F., de Oliveira Monteiro, M. M., Mendes Junior, L. D. G., de Fátima Agra, M., de Andrade Braga, V., Silva, T. M. S., & de Souza, M. D. F. V. (2017). Alkaloids and phenolic compounds from *Sida rhombifolia* L. (Malvaceae) and vasorelaxant activity of two indoquinoline alkaloids. *Molecules*, 22(1).
- Chen, J., & Vitetta, L. (2020). Gut microbiota metabolites in nafld pathogenesis and therapeutic implications. In *International Journal of Molecular Sciences* (Vol. 21, Issue 15, pp. 1–19).
- Draijer, L., Benninga, M., & Koot, B. (2019). Pediatric NAFLD: an overview and recent developments in diagnostics and treatment. In *Expert Review of Gastroenterology and Hepatology* (Vol. 13, Issue 5, pp. 447–461). Taylor and Francis Ltd.
- Eslam, M., Newsome, P. N., Sarin, S. K., Anstee, Q. M., Targher, G., Romero-Gomez, M., Zelber-Sagi, S., Wai-Sun Wong, V., Dufour, J. F., Schattenberg, J. M., Kawaguchi, T., Arrese, M., Valenti, L., Shiha, G., Tiribelli, C., Yki-Järvinen, H., Fan, J. G., Grønbaek, H., Yilmaz, Y., George, J. (2020). A new definition for



UNIVERSITAS  
GADJAH MADA

**EKSPRESI mRNA TUMOR NECROSIS FACTOR-ALFA, GAMBARAN HISTOPATOLOGIS HEPAR, KADAR ENZIM AST DAN ALT  
TIKUS PEMODELAN PERLEMAKAN HEPAR YANG DIBERI EKSTRAK DAUN SIDAGURI (*Sida rhombifolia*)**

JUSTINUS P AGUNG N, dr. Widya Wasityastuti M.Med.Ed M.Sc Ph.D; dr. R. Jajar Setiawan M.Sc Ph.D

Universitas Gadjah Mada, 2023 | Diunduh dari <http://etd.repository.ugm.ac.id/>

- metabolic dysfunction-associated fatty liver disease: An international expert consensus statement. In *Journal of Hepatology* (Vol. 73, Issue 1, pp. 202–209). Elsevier B.V.
- Fan, J. G., Saibara, T., Chitturi, S., Kim, B. I., Sung, J. J. Y., & Chutaputti, A. (2007). What are the risk factors and settings for non-alcoholic fatty liver disease in Asia-Pacific? In *Journal of Gastroenterology and Hepatology (Australia)* (Vol. 22, Issue 6, pp. 794–800). Blackwell Publishing.
- Fang, Y. L., Chen, H., Wang, C. L., & Liang, L. (2018). Pathogenesis of non-alcoholic fatty liver disease in children and adolescence: From “two hit theory” to “multiple hit model.” In *World Journal of Gastroenterology* (Vol. 24, Issue 27, pp. 2974–2983). Baishideng Publishing Group Co.
- Federico, A., Dallio, M., & Loguercio, C. (2017). Silymarin/Silybin and chronic liver disease: A marriage of many years. In *Molecules* (Vol. 22, Issue 2). MDPI AG.
- Federico, A., Dallio, M., Masarone, M., Gravina, A. G., di Sarno, R., Tuccillo, C., Cossiga, V., Lama, S., Stiuso, P., Morisco, F., Persico, M., & Loguercio, C. (2019). Evaluation of the Effect Derived from Silybin with Vitamin D and Vitamin E Administration on Clinical, Metabolic, Endothelial Dysfunction, Oxidative Stress Parameters, and Serological Worsening Markers in Nonalcoholic Fatty Liver Disease Patients. *Oxidative Medicine and Cellular Longevity*, 2019.
- Ferguson, D., & Finck, B. N. (2021). Emerging therapeutic approaches for the treatment of NAFLD and type 2 diabetes mellitus. In *Nature Reviews Endocrinology* (Vol. 17, Issue 8, pp. 484–495). Nature Research.
- Ferro, D. M., Mazzutti, S., Vitali, L., Oliveira Müller, C. M., & Ferreira, S. R. S. (2019). Integrated extraction approach to increase the recovery of antioxidant compounds from *Sida rhombifolia* leaves. *Journal of Supercritical Fluids*, 149, 10–19.
- Friedman, S. L., Neuschwander-Tetri, B. A., Rinella, M., & Sanyal, A. J. (2018). Mechanisms of NAFLD development and therapeutic strategies. In *Nature Medicine* (Vol. 24, Issue 7, pp. 908–922). Nature Publishing Group.
- Hadizadeh, F., Faghihimani, E., & Adibi, P. (2017). Nonalcoholic fatty liver disease: Diagnostic biomarkers. *World Journal of Gastrointestinal Pathophysiology*, 8(2), 11.
- Ikhtiarini, A. N., Setyaningsih, W., Rafi, M., Aminah, N. S., Insanu, M., Imawati, I., & Rohman, A. (2021). Optimization of ultrasound-assisted extraction and the antioxidant activities of Sidaguri (*Sida rhombifolia*). *Journal of Applied Pharmaceutical Science*, 11(8), 70–76.
- Imanuel Setiawan, S., Kurniawan, J., Bhakti Asih, R. (2021). Pilihan Tatalaksana Penyakit Perlemakan Hati Non-Alkohol (Non-Alcoholic Fatty Liver Disease/ NAFLD). *CDK-293* Vol. 48, Issue 3.
- Jabczyk, M., Nowak, J., Hudzik, B., & Zubelewicz-Szkodzińska, B. (2021). Curcumin in metabolic health and disease. In *Nutrients* (Vol. 13, Issue 12). MDPI.
- Jensen, T., Abdelmalek, M. F., Sullivan, S., Nadeau, K. J., Green, M., Roncal, C., Nakagawa, T., Kuwabara, M., Sato, Y., Kang, D. H., Tolan, D. R., Sanchez-Lozada, L. G., Rosen, H. R., Lanaspá, M. A., Diehl, A. M., & Johnson, R. J. (2018). Fructose and sugar: A major mediator of non-alcoholic fatty liver disease. In *Journal of Hepatology* (Vol. 68, Issue 5, pp. 1063–1075). Elsevier B.V.
- Kendel Jovanović, G., Mrakovcic-Sutic, I., Pavičić Žeželj, S., Benjak Horvat, I., Šuša, L., Rahelić, D., & Klobučar Majanović, S. (2021). Metabolic and Hepatic Effects of Energy-Reduced Anti-Inflammatory Diet in Younger Adults with Obesity. *Canadian Journal of Gastroenterology and Hepatology*.
- Lange, N. F., Radu, P., & Dufour, J. F. (2021). Prevention of NAFLD-associated HCC: Role of lifestyle and chemoprevention. In *Journal of Hepatology* (Vol. 75, Issue 5, pp. 1217–1227). Elsevier B.V.



UNIVERSITAS  
GADJAH MADA

**EKSPRESI mRNA TUMOR NECROSIS FACTOR-ALFA, GAMBARAN HISTOPATOLOGIS HEPAR, KADAR ENZIM AST DAN ALT TIKUS PEMODELAN PERLEMAKAN HEPAR YANG DIBERI EKSTRAK DAUN SIDAGURI (*Sida rhombifolia*)**

JUSTINUS P AGUNG N, dr. Widya Wasityastuti M.Med.Ed M.Sc Ph.D; dr. R. Jajar Setiawan M.Sc Ph.D

Universitas Gadjah Mada, 2023 | Diunduh dari <http://etd.repository.ugm.ac.id/>

- Lin, C. H., & Kohli, R. (2020). Emerging New Diagnostic Modalities and Therapies of Nonalcoholic Fatty Liver Disease. In *Current Gastroenterology Reports* (Vol. 22, Issue 10). Springer.
- Liu, Z., Que, S., Xu, J., & Peng, T. (2014). Alanine aminotransferase-old biomarker and new concept: A review. In *International Journal of Medical Sciences* (Vol. 11, Issue 9, pp. 925–935). Ivyspring International Publisher.
- Livak, K. J., & Schmittgen, T. D. (2001). Analysis of relative gene expression data using real-time quantitative PCR and the 2- $\Delta\Delta$ CT method. *Methods*, 25(4), 402–408.
- Mah, S. H., Teh, S. S., & Ee, G. C. L. (2017). Anti-inflammatory, anti-cholinergic and cytotoxic effects of *Sida Rhombifolia*. *Pharmaceutical Biology*, 55(1), 920–928.
- Manne, V., Handa, P., & Kowdley, K. v. (2018). Pathophysiology of Nonalcoholic Fatty Liver Disease/Nonalcoholic Steatohepatitis. In *Clinics in Liver Disease* (Vol. 22, Issue 1, pp. 23–37). W.B. Saunders.
- Miyake, T., Kumagi, T., Hirooka, M., Koizumi, M., Furukawa, S., Ueda, T., Tokumoto, Y., Ikeda, Y., Abe, M., Kitai, K., Hiasa, Y., Matsuura, B., & Onji, M. (2012). Metabolic markers and ALT cutoff level for diagnosing nonalcoholic fatty liver disease: A community-based cross-sectional study. *Journal of Gastroenterology*, 47(6), 696–703.
- Navarro, V. J., Belle, S. H., D'Amato, M., Adfhal, N., Brunt, E. M., Fried, M. W., Rajender Reddy, K., Wahed, A. S., & Harrison, S. (2019). Silymarin in non-cirrhotics with non-alcoholic steatohepatitis: A randomized, double-blind, placebo controlled trial. *PLoS ONE*, 14(9).
- Nurfazri Istiqomah, A., Aligita, W., Putra, H. M., Galang, D., & Nurjamilah, H. (2021). Aktivitas Antidiabetes Ekstrak Etanol Daun Dan Batang Sidaguri (*Sida Rhombifolia*) Terhadap Model Hewan Diabetes Tipe 2. *Jurnal Penelitian Farmasi Indonesia*, 10(2).
- Otrubová, O., Turecký, L., Uličná, O., Janega, P., Luha, J., & Muchová, J. (2018). Therapeutic effects of N-acetyl-L-cysteine on liver damage induced by long-term CCl<sub>4</sub> administration. In *General physiology and biophysics* (Vol. 37, Issue 1, pp. 23–31).
- Pai, R. K. (2019). NAFLD Histology: a Critical Review and Comparison of Scoring Systems. *Current Hepatology Reports*, 18(4), 473–481.
- Parlati, L., Régnier, M., Guillou, H., & Postic, C. (2021). New targets for NAFLD. In *JHEP Reports* (Vol. 3, Issue 6). Elsevier B.V.
- Raza, S., Rajak, S., Upadhyay, A., Tewari, A., & Sinha, R. A. (2020). Current treatment paradigms and emerging therapies for NAFLD/NASH. *Frontiers in bioscience* (Landmark edition), 26(2), 206–237.
- Riazi, K., Azhari, H., Charette, J. H., Underwood, F. E., King, J. A., Ehteshami Afshar, E., Swain, M. G., Congly, S. E., Kaplan, G. G., Shaheen, A. (2021). The worldwide burden of NAFLD: a systematic review and meta-analysis of prevalence and incidence. *The lancet. Gastroenterology & hepatology*, 7(9), 851–861.
- Rodríguez-Correa, E., González-Pérez, I., Clavel-Pérez, P. I., Contreras-Vargas, Y., & Carvajal, K. (2020). Biochemical and nutritional overview of diet-induced metabolic syndrome models in rats: what is the best choice? In *Nutrition and Diabetes* (Vol. 10, Issue 1). Springer Nature.
- Sanjiwani N. A. T. (2020). Aktivitas Hepatoprotektor Ekstrak Daun Sidaguri (*Sida rhombifolia* L.) Terhadap Kerusakan Hati Tikus Putih (*Rattus Novergicus*) Galur Wistar Yang Diinduksi Paracetamol.
- Silalahi, M. (2020). Pemanfaatan Dan Bioaktivitas Sidaguri (*Sida Rhombifolia*). *Florea : Jurnal Biologi Dan Pembelajarannya*, 7(1), 22.



UNIVERSITAS  
GADJAH MADA

**EKSPRESI mRNA TUMOR NECROSIS FACTOR-ALFA, GAMBARAN HISTOPATOLOGIS HEPAR, KADAR ENZIM AST DAN ALT  
TIKUS PEMODELAN PERLEMAKAN HEPAR YANG DIBERI EKSTRAK DAUN SIDAGURI (*Sida rhombifolia*)**

JUSTINUS P AGUNG N, dr. Widya Wasityastuti M.Med.Ed M.Sc Ph.D; dr. R. Jajar Setiawan M.Sc Ph.D

Universitas Gadjah Mada, 2023 | Diunduh dari <http://etd.repository.ugm.ac.id/>

- Softic, S., Stanhope, K. L., Boucher, J., Divanovic, S., Lanaspá, M. A., Johnson, R. J., & Kahn, C. R. (2020). Fructose and hepatic insulin resistance. In *Critical Reviews in Clinical Laboratory Sciences* (Vol. 57, Issue 5, pp. 308–322). Taylor and Francis Ltd.
- Teschke, R. (2018). Liver injury by carbon tetrachloride intoxication in 16 patients treated with forced ventilation to accelerate toxin removal via the lungs: A clinical report. In *Toxics* (Vol. 6, Issue 2). MDPI AG.
- Tortora, G. J., & Derrickson B. (2020). Principles of ANATOMY & PHYSIOLOGY 16th Edition. John Wiley & Sons, Inc.
- Unsal, V., Cicek, M., & Sabancilar, İ. (2021). Toxicity of carbon tetrachloride, free radicals and role of antioxidants. In *Reviews on Environmental Health* (Vol. 36, Issue 2, pp. 279–295). De Gruyter Open Ltd.
- Van Herck, M. A., Vonghia, L., & Francque, S. M. (2017). Animal Models of Nonalcoholic Fatty Liver Disease-A Starter's Guide. *Nutrients*, 9(10), 1072.
- Wah Kheong, C., Nik Mustapha, N. R., & Mahadeva, S. (2017). A Randomized Trial of Silymarin for the Treatment of Nonalcoholic Steatohepatitis. *Clinical Gastroenterology and Hepatology*, 15(12), 1940-1949.e8.
- Younossi, Z., Anstee, Q. M., Marietti, M., Hardy, T., Henry, L., Eslam, M., George, J., & Bugianesi, E. (2018). Global burden of NAFLD and NASH: Trends, predictions, risk factors and prevention. In *Nature Reviews Gastroenterology and Hepatology* (Vol. 15, Issue 1, pp. 11–20). Nature Publishing Group.
- Zelová, H., & Hošek, J. (2013). TNF- $\alpha$  signalling and inflammation: Interactions between old acquaintances. In *Inflammation Research* (Vol. 62, Issue 7, pp. 641–651).
- Zhou, J., Zhou, F., Wang, W., Zhang, X.-J., Ji, Y.-X., Zhang, P., She, Z.-G., Zhu, L., Cai, J., & Li, H. (2020). Epidemiological Features of NAFLD From 1999 to 2018 in China. *Hepatology* (Baltimore, Md.), 71(5), 1851–1864.