

DAFTAR REFERENSI

- Aboul-Einen, A.M., F.K. El Baz., G. S. El Baroty, A.M. Youssef & H. H. Abd El Baky. 2003. Antioxidant Activity of Algal Extracts on Lipid Peroxidation . J. Mes. Sci. 3(1), pp.87-98.
- Adewale, O.B., Adekeye, A.O., Akintayo, C.O., Onikanni, A & S. Saheed. 2014. Carbon tetrachloride (CCl₄)-induced hepatic damage in experimental Sprague Dawley rats: Antioxidant potential of *Xylopiya aethiopica*. *The Journal of Phytopharmacology*. 3(2),pp. 18-123.
- Alexandru, I. 2011. Experimental use of animals in research spa. *Balneo- Research Journal*. 2(1).
- Bengwayan, P.T, J.C. Laygo, A. E. Pacio, J. L. Z. Poyaoan, J. F. Rebugio, & A. L.L. Yuson. 2010. A Comparative Study on the Antioxidant Property of Chlorella (Chlorella sp.) Tablet and Glutathione Tablet. *E-International Scientific Research Journal*. 2(1).
- Botros, M & Sikaris. K. A. 2013. The De Ritis Ratio: The Test of Time. *Clin Biochem Rev*. 13.
- Burlando, B., L. Verotta., L. Cornara & E. Bottini-Massa. 2010. *Herbal Principles In Cosmetics: Properties And Mechanism Of Action*. Newyork: CRC Press Taylor and Francis group.
- Cai, X., Q. Yang & S. Wang. 2015. Antioxidant and hepatoprotective effects of a pigment–protein complex from *Chlorella vulgaris* on carbon tetrachloride-induced liver damage in vivo. *The Royal Society of Chemistry*. 5, pp. 96097–96104.
- Capobianco, M.P., G.C. Cassiano., A.A. D, Furini., L. M. S. de Melo., C. R. B. Domingos, & R. L. D. Machado. 2016. Human Interleukin 2 (IL-2) Promotion of Immune Regulation and Clinical. *Journal of Cytokine Biology*. 1 (2), pp. 1-109.
- Chew, B.P & Park, J.S. 2004. Carotenoid action on the immune response. *Journal of Nutrition*. 134, pp.257–261.
- Darmansjah, I. 1995. *Dasar Toksikologi, Edisis keempat*. Jakarta: Gaya Baru.
- Davies, K.J.A. 2000. Oxidative Stress, Antioxidant Defenses, and Damage Removal, Repair, and Replacement Systems. *IUBMB Life*. 50, pp. 279–289.
- De Ritis, F., G. Giusti., F. Piccinino & Luigi Cacciatore. 1965. Biochemical Laboratory Tests in Viral Hepatitis and other Hepatic Diseases. *Bull Wid Hitha Org*. 32, pp.59-72.
- Derelanko, M.J & Auletta, C.S. 2014. *Handbook of Toxyxology Third Edition*. New york: CRF Press, Taylor & Francis Group.

- Dewi, L. 2016. The effect of lecithin on liver function of white rats (*Rattus norvegicus*) induced carbon tetrachloride. *Biomedical Engineering*. 2(1), pp. 5-10.
- Diplock AT, Charleux JL, Crozier-Willi G, F.J. Kok., C. Rice-Evans., M. Roberfroid., W. Stahl & J. Viiia-Ribes. 1998. Functional food science and defence against reactive oxygen species. *Br J Nutr*. 80, pp.77-112.
- El Baky, Abd. H.H & El-Baroty G.S. 2013. Healthy Benefit of Microalgal Bioactive Substances. *Journal of Aquatic Science*. 1(1), pp.11-23.
- Fithriani, D., S. Amini., S. Melanie, & R. Susilowati. 2015. Uji Fitokimia, Kandungan Total Fenol Dan Aktivitas Antioksidan Mikroalga *Spirulina* sp., *Chlorella* sp., Dan *Nannochloropsis* sp. *JPB Kelautan dan Perikanan*. 10(2), pp.101–109.
- Gabal., A.A. A. A.E. Essawy., A.M. Abdel-Moneim., S.S. Hamed & A.A. Elzergy. 2007. The protective effect of black seed (*Nigella sativa*) against carbon tetrachloride-induced chromosomal aberrations and ultrastructural changes of bone marrow cells. *Arab J. Biotech*. 10(2), pp. 275-288.
- Gianini, E., D. R isso., F. Botta., B. Chiardbonello., A. Fasoli., F. Malfatti., P. Romagnoli., E. Testa., P. Ceppa & R. Testa. 2003. Validity and Clinical Utility of the Aspartate Aminotransferase- Alanine Aminotransferase Ratio in Assessing Disease Severity and Prognosis in Patients With Hepatitis C Virus-Related Chronic Liver Disease. *Arc intern med*. 163.
- Giboney P.T. 2005. Mildly elevated liver transaminase levels in the asymptomatic patient. *Am Fam Physician*. 71(6):1105-10.
- Goiris, K., W. Van Colen., I. Wilches., F. León-Tamariz., L. De Cooman & K. Muylaert. 2015. Impact of nutrient stress on antioxidant production in three species of microalgae. *Algal Research*, 51, pp.51-57.
- Hamza, T., J. B. Barnett & B. Li. 2010. Interleukin 12 a Key Immunoregulatory Cytokine in Infection Applications. *International Journal of Molecular Sciences*. 11, pp. 789-806.
- Hanifa. L & E. Zulaika. 2014. Potensi Sel *Chlorella* sp. Inaktif Sebagai Biosorben Logam Berat Cd²⁺. *Jurnal Sains Dan Seni Pomits*, 3(2).
- Harborne, J.B. 1987. *Metode Fitokimia, edisi kedua*. Bandung: ITB.
- Hardiningtyas, S.D., S. Purwaningsih & E. Handharyani. 2014. Aktivitas Antioksidan Dan Efek Hepatoprotektif Daun Bakau Api-Api Putih. *JPHPI*, 17(1).
- Iwamoto, H. 2004. Industrial Production of Microalgal Cell-mass and Secondary Products Major Industrial Species *Chlorella*. Edited Amos Richmond. Handbook of Microalgal Culture: Biotechnology and Applied Phycology. Blackwell Publishing Ltd.

- Kim, H., L. Li., H. Lee., M. Park., D. Bilehal., W. Li & Y. Kim. 2009. Protective Effects of *Chlorella vulgaris* Extract on Carbon Tetrachloride-induced Acute Liver Injury in Mice. *Food Sci. Biotechnol.* 18(5), pp. 1186-1192.
- Kim, Na-Hyung., Ki, Kyu-Yeob., Jeong, H., Kim,H., Hong, S & Um, J. 2010. Effects of hydrolyzed *Chlorella vulgaris* by malted barley on the immunomodulatory response in ICR mice and in Molt-4 cells. *J Sci Food Agric.* 90, pp. 1551–1556.
- Kitada, K., S. Machmudah., M.Sasaki., M. Goto., Y. Nakashima., S.Kumamoto & T.Hasegawa. 2009. Supercritical CO₂ extraction of pigment components with pharmaceutical importance from *Chlorella vulgaris*. *J Chem Technol Biotechnol*, 84, pp. 657–661
- Kroemer G, El-Deiry WS, Golstein P, Peter ME, Vaux D, Vandenabeele P, Zhivotovsky B, Blagosklonny M.V, Malorni W, Knight RA, Piacentini M, Nagata S, & Melino G. 2005. Nomenclature Committee on Cell Death. Classification of cell death: recommendations of the nomenclature committee on cell death. *Cell Death Differ.* (12), pp.1463-1467.
- Kwak, J.H., S. H. Baek., Y. Woo., J. K. Han., B. G. Kim., O. Y. Kim, & J. H. Lee. 2012. Beneficial immunostimulatory effect of short-term *Chlorella* supplementation: enhancement of Natural Killer cell activity and early inflammatory response (Randomized, double-blinded, placebo-controlled trial). *Nutrition Journal.* 11(53), pp.1-8.
- Laurence, D.R. & Bacharach, A.L., 1964. *Evaluation of drug activities: pharmacometrics*. London: Academic Press
- Lee, J.H., B. Ozcelik & D.B. Min. 2003. Electron Donation Mechanisms of β -Carotene as a Free Radical Scavenger. *Journal Of Food Science.* 68(3), pp.861-865.
- Li, L., W. Li., Y. Kim & Y. W. Lee. 2013. *Chlorella vulgaris* extract ameliorates carbon tetrachloride-induced acute hepatic injury in mice. *Experimental and Toxicologic Pathology* (65), pp.73-80.
- Lien A.P., H. He & C. Pham-Huy. 2008. Free Radicals, Antioxidants in Disease and Health. *International journal of Biomedical science.* 4(2).
- Lin, F & H. A. Young. 2013. The talented interferon-gamma. *Advances in Bioscience and Biotechnology.* 4, pp. 6-13.
- Lintong, P., Kairupan, C & Lintong, P. 2013. Gambaran Histopatologik Hati Tikus Wistar Yang Diberikan Air Rebusan Daun Sendok (*plantago major*) Pasca Induksi Karbon Tetraklorida (CCl₄). *Jurnal e-Biomedik.* 1(2), pp. 935-939.
- Lü, Jian-Ming., P. H. Lin., Q. Yao & Changyi Chen. 2010. Chemical and molecular mechanisms of antioxidants: experimental approaches and model systems. *J. Cell. Mol. Med*, 14(4), PP. 840-860.

- Lu. F.C. 1995. *Toksikologi Dasar, Asas, Organ Sasaran dan Penelitian Resiko, Edisi Kedua*, Terjemahan Nugroho Edi, Jakarta: Universitas Indonesia.
- Mahaboob, S. R., Jayarami, R. U, & John, B. S. 2013. A Study on Serum Enzyme Levels In Various Liver Diseases. *International Journal of Medical Research & Health Sciences*, 2(3).
- McCall M & Frei B. 1999. Can antioxidant vitamins materially reduce oxidative damage in humans. *Free Rad Biol Med*, 26, pp.1034–1053.
- Mortensen, A., L. H. Skibsteda. , J. Sampsonb. , C. Rice-Evansb & S. A. Everett. 1997. Comparative mechanisms and rates of free radical scavenging by carotenoid antioxidants. *FEBS Letters*. 418, pp.91-97.
- Murray, R.K., D.K. Granner., P.A. Mayes & V.W. Rodwell. 2003. *Biokimia Harper* edisi 25. Jakarta: Penerbit Buku Kedokteran EGC.
- Murthy, K.N.C., J. Rajesha., M. M. Swamy & G.A. Ravishankar. 2005. Comparative Evaluation of Hepatoprotective Activity of Carotenoids of Microalgae. *Journal Of Medicinal Food*. 8(4), pp. 523–528.
- Panjaitan, R.G.P., E. Handharyani., Chairul., Masriani., Z. Zakiah & W. Manalu. 2007. Pengaruh Pemberian Karbon Tetraklorida Terhadap Fungsi Hati Dan Ginjal Tikus. *MAKARA, Kesehatan*, 11(1), pp.11-16.
- Panovska TK, Kulevanova S, Gjorgoski I, Bogdanova M & Petrushevska G. 2007. Hepatoprotective effect of the ethyl acetate extract of *Teucrium polium* L. against carbontetrachloride-induced hepatic injury in rats. *Acta Pharmaceutica*, 57, pp. 241-248.
- Patel, S & Sail, S. 2006. β -carotene Protects the Physiological Antioxidant Against Aflatoxin-B1 Induced Carcinogenesis in Albino Rats. *Pakistan Journal of Biological Sciences*. 9(6),pp. 1104-1111.
- Peng, H., Y. Chu., S. Chen., & S. Chou. 2009. Hepatoprotection of Chlorella against Carbon Tetrachloride-induced Oxidative Damage in Rats. *In vivo*, 23, pp. 747-754.
- Priyanto. 2009. *Toksikologi: Mekanisme, Terapi Antidotum, dan Penilaian Resiko*. Depok: Leskonfi.
- Rahal, A., A. H. Ahmad & A. Kumar. 2013. Clinical drug interactions: a holistic view. *Pakistan Journal of Biological Sciences*. 16(16), pp. 751–758.
- Sangkalp, M. 2012. Serum and Hepatocyte Enzyme. *Journal Of Scientific & Innovative Research*, 1(3).
- Schweichel, J.U & Merker, H.J. 1973. The morphology of various types of cell death in prenatal tissues. *Teratology*. (7), pp.253–266.

- Sedigheha, K., M. Yadollahb & V. Rohollah. 2014. The Effect of Ten Weeks Resistance Training on AST and ALT of fatty liver patients. *Journal of Research in Applied sciences*. 1(7), pp. 146-149.
- Sharma, R., G. P. Singh, & V. K. Sharma. 2012. Comparison of Different Media Formulations on Growth, Morphology and Chlorophyll Content Of Green Alga, *Chlorella vulgaris*. *International Journal of Pharma and Bio Sciences*. 2(2).
- Sulistianto, D.E., M. Harini & N. S. Handajani. 2004. Pengaruh Pemberian Ekstrak Buah Mahkota Dewa [*Phaleria macrocarpa* (Scheff) Boerl] terhadap Struktur Histologis Hepar Tikus Putih (*Rattus norvegicus* L.) setelah Perlakuan dengan Karbon Tetraklorida (CCl₄) secara Oral. *BioSmart*, 6(2), pp.91-98.
- Tang, G & P. M. Suter. 2011. Vitamin A, Nutrition, and Health Values of Algae: Spirulina, Chlorella, and Dunaliella. *Journal of Pharmacy and Nutrition Sciences*, 1 (2), pp. 111-118
- Tappi, E. S., P. Lintong & L. L. Loho. 2013 Gambaran Histopatologi Hati Tikus Wistar Yang Diberikan Jus Tomat (*Solanum Lycopersicum*) Pasca Kerusakan Hati Wistar Yang Diinduksi Karbon Tetraklorida (CCl₄). *Jurnal e-Biomedik (eBM)*, 1(3), pp.1126-1129.
- Trabera, M.G & J. F. Stevens. 2011. Vitamins C and E: Beneficial effects from a mechanistic perspective. *Free Radic Biol Med*. 51(5),pp. 1000–1013
- Trachootham, D., W. Lu, M. A. Ogasawara, N. R. Valle, & P. Huang. 2008. Redox regulation of cell survival. *Antioxidants and Redox Signaling*. 10(8),pp. 1343–1374.
- Wahdaningsih, S., E. P. Setyowati & S. Wahyuono. 2011. Aktivitas Penangkap Radikal Bebas Dari Batang Pakis (*Alsophila glauca* J. Sm). *Majalah Obat Tradisional*. 16(3).
- Wahyuni, S. 2005. Pengaruh Daun Sambiloto (*Andrographis paniculata*, NESS) Terhadap Kadar SGPT dan SGOT Tikus Putih. *Gamma*, 1(1), pp.45-53.
- Wang, X & Peter J. Quinn. 1999. Vitamin E and its function in membranes. *Progress in Lipid Research*. 38, pp. 309-336.
- Widyastuti, P & M. Ester. 2005. *Bahan Kimia Pada Kesehatan Manusia Dan Lingkungan*. Jakarta: Penerbit buku kedokteran EGC.
- Wolf, P.L. 1999. Biochemical Diagnosis of Liver Disease. *Indian Journal of Clinical Biochemistry*, 14(1), pp.59-90.
- Yi, B.2012. Atioxidant Effect of Alcohol Extract from Chlorella. *Agriculture Biotechnology*, 1(5), pp.52-54.