



## DAFTAR PUSTAKA

- Abbott, I.A. and Huisman, J.M. 2004. *Marine green and brown algae of the Hawaiian Islands*. Honolulu: Bishop Museum Press. pp. 11-14.
- Aisha, K. and Shameel, M. 2010. Occurrence of the Genus *Padina* (Dictyophyceae, Phaeophycota) in the Coastal Waters of Karachi. *Pakistan Journal of Botany*, (42): 319-340.
- Ale, M.T. and Meyer, A.S. 2013. Fucoidans from brown seaweeds: an update on structures, extraction techniques and use of enzymes as tools for structural elucidation. *Royal Society of Chemistry Advances*, (3) : 8131-8141.
- Alfadda, A.A. and Sallam, R.M. 2012. Reactive oxygen species in health and disease. *Journal of Biomedicine Biotechnology*, (12):1-14.
- Arnao, M.B. 2000. Some methodological problems in the determination of antioxidant activity using chromogen radicals: a practice case. *Trends in Food Science & Technolog*, 11(11):419–421.
- Athukorala, Y., Lee, K., Kim, S., and Jeon, Y. 2007. Anticoagulant activity of marine green and brown algae collected from Jeju Island in Korea. *Bioresource Technology*, (98):1711–1716.
- Aydin, A., Ercan, O., and Taşcıoğlu, S. 2005. A Novel Method for The Spectrophotometric Determination of Nitrite in Water. *Talanta*, (66):1181–1186.
- Bahuguna, A., Khan, I., Bajpai, V.K., and Kang, S.C. 2017. MTT assay to evaluate the cytotoxic potential of a drug. *Bangladesh Journal Pharmacol*, (12):115-118.
- Berridge, M.V., Herst, P.M., and Tan, A.S. 2005. Tetrazolium dyes as tools in cell biology: New insights into their cellular reduction. *Biotechnology Annual Review*, (11): 127-52.
- Bolouri-Moghaddam, M., Xiang, L., Roy, K.L., Vanhaecke, M., and Lammens, W. 2011. Exploring the neutral invertase–oxidative stress defence connection in *Arabidopsis thaliana*. *Journal of Experimental Botany*, 62(11): 3849–3862.
- Burton, G.J. and Jauniaux, E. 2011. Oxidative stress. *Best Practice & Research Clinical Obstetrics and Gynaecology*, (25): 287–299.
- Cadenas, E. and Davies, K.J.A. 2000. Mitochondrial free radical generation, oxidative stress, and aging. *Free Radical Biology & Medicine*, (29):222–230.
- Carpenter, K.E. and V. H. Niem. 2008. *Fao species identification guide for fishery purposes the living marine resources of the western central pacific vol. 1*. Food and agriculture organization of the united nations: Roma. P: 64.
- Chae, S.Y., Lee, M., Kim, S.W., and Bae, Y.H. 2004. Protection of insulin secreting cells from nitric oxide induced cellular damage by crosslinked hemoglobin. *Biomaterials*, 25(5):843-50.
- Chan, J.C., Cheung, P.C.K., and Ang, P.O. 2007. Comparative studies on the effect of three drying method on nutritional composition of seaweed *Sargassum hemiphyllum* (Turn). *Journal of Agriculture and Food Chememistry*, (45): 3056–3059.
- Cornish, M.L. and Garbary D.J. 2010. Antioxidant from macroalgae: potential application in human health and nutrition. *Algae*, 25(4): 155–71.
- Csonka, C., Páli, T., Bencsik, P., Görbe1, A., Ferdinandy, P., and Csont, T. 2015. Measurement of NO in biological samples. *British Journal of Pharmacology*, (172):1620–1632.



- Davies, K. J. A. 2009. The broad spectrum of responses to oxidants in proliferating cells: a new paradigm for oxidative stress. *International Union of Biochemistry and Molecular Biology Life*, (48):41–47.
- Estacia, P., Santos, Jr. A.R., Moreira, P.L., and Genari, S.C. 2002. The cytotoxicity in Vero cells of a perfluorocarbon used in vitreoretinal surgery. *Brazilian Journal of Morphological Sciences*, (19):41-7.
- European Collection of Authenticated Cell Cultures. 2016. *Vero Cell Line Profile*. England : Public Health England. Pp. 1-2.
- Freshney, I. A. 2000. *Culture Of Animal Cells. A Manual of Basic Technique IV Edition*. Toronto: Willey-Liss. p. 329-344.
- Geraldino, P.J.L., Liao, L.M. and Boo, S.M. 2005. Morphological Study of the Marine Algal Genus *Padina* (Dictyotales, Phaeophyceae) from Southern Philippines: 3 Species New to the Philippines. *Algae*, (20):99-112.
- Gomez-Lechon, M.J., Ponsoda, X., and Castell, J.V. 2000. *In vitro toxicity testing*. In: Doyle A, Griffiths JB (eds) *Cell and tissue culture for medical research*. Wiley, Chinchester, pp. 402–419.
- Guiry, M.D. and Guiry, G.M. 2019. *AlgaeBase*. World-wide electronic publication, National University of Ireland, Galway. <http://www.algaebase.org>; searched on 02 March 2019.
- Halliwell, B., Clement, M.V., Ramalingam, J., and Long, L.H., 2000. Hydrogen Peroxide. Ubiquitous in Cell Culture and In vivo?. *International Union of Biochemistry and Molecular Biology Life*, (50): 251–257.
- Hernandez-Marin, E., and Martínez, A. 2012. Carbohydrates and Their Free Radical Scavenging Capability: A Theoretical Study. *The Journal of Physical Chemistry*, (116):9668–9675.
- Hidayati, J.R., Ridlo, A., dan Pramesti, R. 2017. Aktivitas Antioksidan Ekstrak Rumpun Laut *Padina* sp. Dari Perairan Bandengan Jepara Dengan Metode Transfer Elektron. *Buletin Oseanografi Marina*. 6 (1):46–52.
- Ioannidis, I., and Groot, H., 2003. Cytotoxicity of nitric oxide in FU5 hepatoma cells: evidence for co-operative action with hydrogen peroxide. *Biochemistry Journal*, (296):341-345.
- Katsube, T., Tsuji, H., and Onoda, M. 2007. Nitric oxide attenuates hydrogen peroxide-induced barrier disruption and protein tyrosine phosphorylation in monolayers of intestinal epithelial cell. *Biochimica et Biophysica Acta*, (1773):794–803.
- Kedare, S.B., and Singh, R.P. 2011. Genesis and development of DPPH method of antioxidant assay. *Journal of Food Science Technology*. 48(4):412–422.
- Kerans, F.A., 2010. *Optimasi lama waktu maserasi dan volume metanol terhadap aktivitas antibakteri ekstrak Padina sp. (Linn.) pada Klebsia pneumoniae MGH 76578, Staphylococcus aureus SNCC 0047, dan Bacillus subtilis SNCC 0061* [skripsi]. Yogyakarta (ID): Universitas Atma Jaya: Yogyakarta.
- Kim, S. 2011. *Handbook of Marine Macroalgae: Biotechnology and Applied Phycology*. John Wiley & Sons, Ltd: West Sussex., pp. 3-10.
- Kuppusamy, P., Yusoff, M.M., Parine, N.R., and Govindan, N. 2015. Evaluation of In-vitro Antioxidant and Antibacterial Properties of *Commelina nudiflora* L. Extracts Prepared by Different Polar Solvents. *Saudi Journal of Biology Science*, (22): 293–301.



- Kusaykin, M., Bakunina, I., Sova, V., and Ermakova, S. 2008. Structure, biological activity, and enzymatic transformation of fucoidans from the brown seaweeds. *Biotechnology Journal*, (3):904–915.
- Lee, W., Kang, N., Kim, E., and Jeon, Y. 2017. Radioprotective effects of a polysaccharide purified from *Lactobacillus plantarum*-fermented *Ishige okamurae* against oxidative stress caused by gamma ray-irradiation in zebrafish in vivo model. *Journal of Functional Foods*, (28):83–89.
- Li, B., Lu, F., Wei, X., and Zhao, R. 2008. Fucoidan: Structure and Bioactivity. *Molecules*, (13): 1671-1695.
- López-Alarcón, C., and Denicola, A. 2013. Evaluating the antioxidant capacity of natural products: A review on chemical and cellular-based assays. *Analytica Chimica Acta*, (763): 1– 10.
- Merloo, J., Kaspers, G. J. L., and Cloos, J. 2011. *Cell Sensivity Assays: The MTT Assay. Dalam: Cancer Cell Culture Methods and Protocols Edisi Kedua*. London: Human Press. p. 237-244.
- Miliauskas, G., Venskutonis, P., and Van Beck, T.A. 2004. Screening of Radical Scavenging Activity of some Medicinal and Aromatic Plant Extracts. *Journal of Food Chemistry*, 85(2):231-237.
- Mohsin, S., Mahadevan, R., Kurup, G.M. 2014. Free-radical scavenging activity and antioxidant effect of ascophyllan from marine brown algae *Padina tetrastromatica*. *Biomedicine and Preventive Nutrition*, (4):75–79.
- Molyneux, P. 2004. The Use of The Stable Free Radical Diphenylpicrylhydrazyl (DPPH) for Estimating Antioxidant Activity. *Journal of Science and Technology*, 26(2): 212-219.
- Moon, H.J., Lee, S.H., and Ku, M.J. 2009. Fucoidan Inhibits UVB-induced MMP-1 promoter expression and down regulation of type I procollagen synthesis in human skin fibroblast. *Europe Journal of Dermatology*, 19 (2) :129-34.
- Moorcroft, Matthew, J., Davis, J., and Compton, R.G., 2001. Detection and Determination of Nitrate and Nitrite: A Review. *Talanta*, (54):785-803.
- Moubayed, N.M.S., Al Hour, H.J., Al Khulaifi, M.M., and Al Farraj, D.A. 2016. Antimicrobial, Antioxidant Properties and Chemical Composition of Seaweed Collected from Saudi Arabia (Red Sea and arabian Gulf). *Saudi Journal of Biology Science*, (2):1-8.
- Nabavi, S.M., Nabavi, S.F., Eslami, S., and Moghaddam, A.H. 2012. In Vivo Protective Effects of Quercetin against Sodium Fluoride-Induced Oxidative Stress in the Hepatic Tissue. *Food Chemistry*, (132):931-935.
- Ni-Ni-Win, Hanuda, T., Draisma, S.G.A., Lim, P.E., Pang, S.M., and Kawai, H. 2013. Taxonomy of the Genus *Padina* (Dictyotales, Phaeophyceae) Based on Morphological and Molecular Evidences, with Key to Species Identification. *Taxonomy of Southeast Asian Seaweeds*, (11):119-174.
- Obluchinskaya, E. D., Voskoboynikov, G. M., and Galinkin, V. A. 2002. Content of alginic acid and fucoidan in the Fucales of Barentsev sea. *Biochemistry and Microbiology*, (38):213-216.
- Osada, N., Kohara, A., Yamaji, T., Hirayama, N., Kasai, F., Sekizuka, T., Kuroda, M., and Hanada, K. 2014. The genome landscape of the African green monkey kidney-derived Vero cell line. *DNA Research*, (21):673-683.
- Pacher, P., Beckman, J.S., and Liaudet, L. 2007. Nitric oxide and peroxynitrite in health and disease. *Physiological Reviews*, (87):315–424.



- Pangestuti, R., dan Limantara, L. 2010. Rumput Laut, Zamrud Tak Tergali Dari Laut. *Biological Society*, (2):2–10.
- Parry, J., Su, L., Luther, M., Zhou, K.Q., Yurawecz, M.P., Whittaker, P., and Yu, L.L. 2005. Fatty acid composition and antioxidant properties of coldpressed marionberry, boysenberry, red raspberry, and blueberry seed oils. *Journal of Agriculture Food Chemistry*, (53):566–573.
- Prior, R.L., Wu, X., and Schaich, K. 2005. Standardized methods for the determination of antioxidant capacity and phenolics in foods and dietary supplements. *Journal of Agriculture Food Chemistry*, (53):4290–4302.
- Qian, J., and Fulton, D. 2013. Post-translational regulation of endothelial nitric oxide synthase in vascular endothelium. *Frontiers in Physiology*, (4): 347.
- Qian, Z.J., Jung, W.K., and Kim, S.K. 2008. Free radical scavenging activity of a novel antioxidative peptide purified from hydrolysate of bullfrog skin, *Rana catesbeiana* Shaw. *Bioresource Technology*, (99):1690–1698.
- Rohman, A. 2016. *Lipid: Sifat Fisika Kimia Dan Analisisnya*. Yogyakarta: Pustaka Pelajar. p. 216.
- Sarastani, D., Soewarno, T. Soekarto, S.T., Muchtadi, T.R., dan Apriyantono, A. 2002. Aktivitas Antioksidan Ekstrak dan Fraksi Ekstrak Biji Atung (*Parinariium glaberrimum* Hassk.). *Jurnal Teknologi dan Industri Pangan*, 13 (2): 145-149.
- Sayuti, K. dan Yenrina, R. 2015. *Antioksidan, Alami dan Sintetik*. Padang: Andalas University Press. p. 17.
- Setha, B., Gaspersz, F., Idris A.P.S., Rahman, S., Mailoa, M.N. 2013. Potential of seaweed *Padina* sp. as a source of antioxidant. *Journal of Science & Techonolgy Research*, 2(6):221-224.
- Shah, V., Lyford, G., Gores, G., and Farrugia, G. 2004. Nitric oxide in gastrointestinal health and disease. *Gastroenterology*, (126):903–913.
- Sudarmadji, S., Haryono, B., dan Suhardi. 2007. *Analisa Bahan Makanan dan Pertanian*. Liberty:Yogyakarta. p. 13.
- Stone, J.R. and Yang, S. 2006. Hydrogen peroxide: a signalling messenger. *Antioxidants & Redox Signaling*, (8):243–270.
- Swing, J. 2003. What future for the oceans. *Foreign Affairs*, (82): 139–152.
- Tam, S.F., Lian, A.A., Kuppusamy, P., Yusoff, M.M., and Govindan, N. 2013. Studies on invitro antioxidant activity of marine edible seaweeds from the east coastal region of Peninsular Malaysia using different extraction methods. *Journal of Coast Life Medicine*, 1(3):193-198.
- Wang, L., Ryu, B., Kim, W., Kim, G.H., and Jeon, Y. 2017. Protective effect of gallic acid derivatives from the freshwater green alga *Spirogyra* sp. against ultraviolet B-induced apoptosis through reactive oxygen species clearance in human keratinocytes and zebrafish. *Algae*, 32(4): 379-388.
- Wijesinghe, W.A.J.P., Senevirathne, M., Oh, M., and Jeon, Y. 2011. Protective effect of methanol extract from citrus press cakes prepared by far-infrared radiation drying on H<sub>2</sub>O<sub>2</sub>-mediated oxidative damage in Vero cells. *Nutrition Research and Practice*, 5(5):389-395.
- Wink, David A., Cook, J. A., Pacelli, R., De Graff, W., Gamson, J., Liebmann, J., and Mitchell, J. B. 2006. The effect of various nitric oxide-donor agents on hydrogen peroxide-mediated toxicity: a direct correlation between nitric oxide formation and protection. *Archives of biochemistry and biophysics*, 331(2):241-248.



- Yang, X., Kang, M., and Lee, K. 2011. Antioxidant activity and cell protective effect of loliolide isolated from *Sargassum ringgoldianum* subsp. *coreanum*. *Algae*, (26):201–208.
- Yuvaraj, N., Kanmani, P., Satishkumar, R., Paari, K.A., and Pattukumar, V. 2011. Extraction, purification and partial characterization of *Cladophora glomerata* against multidrug resistant human pathogen *Acinetobacter baumannii* and fish pathogens. *World Journal of Fish and Marine Science*, 3(1):51-57.
- Zubia, M., Robledo, D., and Freile-Pelegrin, Y. 2007. Antioxidant activities in marine macroalgae from the coasts of quintana Roo and Yucatan, Mexico. *Journal of Applied Phycology*, (19): 449–458.
- Zvyagintseva, T., Shevchenko, N., Nazarenko, E., and Gorbach, V. 2005. Water soluble polysaccharides of some brown algae of the Russian Far-East. Structure and biological action of low-molecular mass polyuronans. *Journal of Experimental Marine Biology and Ecology*, (320):123–131.