

DAFTAR PUSTAKA

- Abas, F., Lajis, N.H., Shaari, K., Israf, D.A., Stanslas, J., Yusuf, U.K., dkk., 2005. A Labdane Diterpene Glucoside from the Rhizomes of *Curcuma mangga*. *Journal of Natural Products*, **68**: 1090–1093.
- Adan, A., Alizada, G., Kiraz, Y., Baran, Y., dan Nalbant, A., 2017. Flow cytometry: Basic Principles and Applications. *Critical Reviews in Biotechnology*, **37**: 163–176.
- Ahmed, D., Khan, M., dan Saeed, R., 2015. Comparative Analysis of Phenolics, Flavonoids, and Antioxidant and Antibacterial Potential of Methanolic, Hexanic and Aqueous Extracts from *Adiantum caudatum* Leaves. *Antioxidants*, **4**: 394–409.
- Ak, T. dan Gülçin, İ., 2008. Antioxidant and Radical Scavenging Properties of Curcumin. *Chemico-Biological Interactions*, **174**: 27–37.
- Alam, Md.N., Bristi, N.J., dan Rafiquzzaman, Md., 2013. Review on In Vivo and In Vitro Methods Evaluation of Antioxidant Activity. *Saudi Pharmaceutical Journal*, **21**: 143–152.
- Apak, R., 2019. Current Issues in Antioxidant Measurement. *Journal of Agricultural and Food Chemistry*, **67**: 9187–9202.
- Azwanida NN, 2015. A Review on the Extraction Methods Use in Medicinal Plants, Principle, Strength and Limitation. *Medicinal & Aromatic Plants*, **04**.
- Bele, A.A. dan Khale, A., 2011. An Overview on Thin Layer Chromatography. *International Journal of Pharmaceutical Sciences and Research*, **2**: 256–267.
- Bhaskaran, N., Srivastava, J.K., Shukla, S., dan Gupta, S., 2013. Chamomile Confers Protection against Hydrogen Peroxide-Induced Toxicity through Activation of Nrf2-Mediated Defense Response: Chamomile Induces Phase II Enzymes. *Phytotherapy Research*, **27**: 118–125.
- Bibi Sadeer, N., Montesano, D., Albrizio, S., Zengin, G., dan Mahomoodally, M.F., 2020. The Versatility of Antioxidant Assays in Food Science and Safety—Chemistry, Applications, Strengths, and Limitations. *Antioxidants*, **9**: 709.
- Canton, M., Sánchez-Rodríguez, R., Spera, I., Venegas, F.C., Favia, M., Viola, A., dkk., 2021. Reactive Oxygen Species in Macrophages: Sources and Targets. *Frontiers in Immunology*, **12**: 734229.

- Carocho, M. dan Ferreira, I.C.F.R., 2013. A review on Antioxidants, Prooxidants and Related Controversy: Natural and Synthetic Compounds, Screening and Analysis Methodologies and Future Perspectives. *Food and Chemical Toxicology*, **51**: 15–25.
- Chaves, J.O., de Souza, M.C., da Silva, L.C., Lachos-Perez, D., Torres-Mayanga, P.C., Machado, A.P. da F., dkk., 2020. Extraction of Flavonoids from Natural Sources Using Modern Techniques. *Frontiers in Chemistry*, **8**: 507887.
- Chen, G.-L., Fan, M.-X., Wu, J.-L., Li, N., dan Guo, M.-Q., 2019. Antioxidant and Anti-inflammatory Properties of Flavonoids from Lotus plumule. *Food Chemistry*, **277**: 706–712.
- Du, Y.-T., Long, Y., Tang, W., Liu, X.-F., Dai, F., dan Zhou, B., 2022. Prooxidative Inhibition against NF- κ B-mediated Inflammation by Pharmacological Vitamin C. *Free Radical Biology and Medicine*, **180**: 85–94.
- Flieger, J., Flieger, W., Baj, J., dan Maciejewski, R., 2021. Antioxidants: Classification, Natural Sources, Activity/Capacity Measurements, and Usefulness for the Synthesis of Nanoparticles. *Materials*, **14**: 4135.
- Furger, C., 2021. Live Cell Assays for the Assessment of Antioxidant Activities of Plant Extracts. *Antioxidants*, **10**: 944.
- Gandjar, I.G. dan Rohman, A., 2007. Kimia Farmasi Analisis. Pustaka Pelajar, Yogyakarta.
- Girard-Lalancette, K., Pichette, A., dan Legault, J., 2009. Sensitive cell-based assay using DCFH oxidation for the determination of pro- and antioxidant properties of compounds and mixtures: Analysis of fruit and vegetable juices. *Food Chemistry*, **115**: 720–726.
- Gulcin, İ., 2020. Antioxidants and antioxidant methods: an updated overview. *Archives of Toxicology*, **94**: 651–715.
- Gupta, R.K., Patel, A.K., Shah, N., Choudhary, A.K., Jha, U.K., Yadav, U.C., dkk., 2014. Oxidative Stress and Antioxidants in Disease and Cancer: A Review. *Asian Pacific Journal of Cancer Prevention*, **15**: 4405–4409.
- Gusmaini, Yusron, M., dan Januwati, M., 2004. TEKNOLOGI PERBANYAKAN BENIH SUMBER TEMU MANGGA. *Perkembangan Teknologi TRO*, **XVI**: .
- Hacisevki, A., 2009. An overview of ascorbic acid biochemistry. *Ankara Universitesi Eczacilik Fakultesi Dergisi*, **38**: 233–255.
- Hartono, Y.I., Widyastuti, I., Luthfah, H.Z., Islamadina, R., Can, A.T., dan Rohman, A., 2020. Total Flavonoid Content and Antioxidant Activity of Temu

Mangga (*Curcuma mangga* Val. & Zijp) and its Classification with Chemometrics. *Journal of Food and Pharmaceutical Sciences*, 4.

Herb, M. dan Schramm, M., 2021. Functions of ROS in Macrophages and Antimicrobial Immunity. *Antioxidants*, 10: 313.

Hwang, K.-A., Hwang, Y.-J., dan Song, J., 2016. Antioxidant activities and oxidative stress inhibitory effects of ethanol extracts from *Cornus officinalis* on raw 264.7 cells. *BMC Complementary and Alternative Medicine*, 16: 196.

Indis, N.A. dan Kurniawan, F., 2016. Determination of free radical scavenging activity from aqueous extract of *Curcuma mangga* by DPPH method. *Journal of Physics: Conference Series*, 710: 012043.

Jain, A. dan Jain, P., 2020. 'Antioxidant Evaluation and Chemo-Profiling of Non-conventional *Curcuma* Species as Conservation of Drug Targeting Molecule', preprint, . In Review.

Jain, A. dan Parihar, D.K., 2018. In vitro Antioxidant and Antidiabetic Activity of Regional Chemotypes of three *Curcuma* species from Chhattisgarh 7: 11.

Jakubczyk, K., Drużga, A., Katarzyna, J., dan Skonieczna-Żydecka, K., 2020. Antioxidant Potential of Curcumin—A Meta-Analysis of Randomized Clinical Trials. *Antioxidants*, 9: 1092.

Jayaprakasha, G.K., Jaganmohan Rao, L., dan Sakariah, K.K., 2006. Antioxidant activities of curcumin, demethoxycurcumin and bisdemethoxycurcumin. *Food Chemistry*, 98: 720–724.

Kim, S., Kim, M., Kang, M.-C., Lee, H.H.L., Cho, C.H., Choi, I., dkk., 2021. Antioxidant Effects of Turmeric Leaf Extract against Hydrogen Peroxide-Induced Oxidative Stress In Vitro in Vero Cells and In Vivo in Zebrafish. *Antioxidants*, 10: 112.

Krumova, K. dan Cosa, G., 2016. Chapter 1: Overview of Reactive Oxygen Species , in Singlet Oxygen: Applications in Biosciences and Nanosciences. *Comprehensive Series in Photochemical & Photobiological Sciences*, 1: 1–21.

Kwaffo, Y.A., Sarpong-Duah, M., Owusu-Boateng, K., Gbewonyo, W.S., Adjimani, J.P., dan Mosi, L., 2021. Natural antioxidants attenuate mycolactone toxicity to RAW 264.7 macrophages. *Experimental Biology and Medicine*, 246: 1884–1894.

Lee, C.Y., Nurul Zaidah, A.S., dan Nur Amalina, G., 2014. A Review of the Use of Piper Betel in Oxidative Stress Disorders. *la Clinica Terapeutica*, 269–277.

- Li, J., Li, Yan, Li, Yuyao, Yang, Z., dan Jin, H., 2020. Physicochemical Properties of Collagen from *Acaudina Molpadioides* and Its Protective Effects against H₂O₂-Induced Injury in RAW264.7 Cells. *Marine Drugs*, 18: 370.
- Lim, T.K., 2016a. *Curcuma mangga*, dalam: *Edible Medicinal and Non-Medicinal Plants*. Springer International Publishing, Cham, hal. 363–370.
- Lim, T.K., 2016b. *Curcuma mangga*, dalam: *Edible Medicinal and Non-Medicinal Plants*. Springer International Publishing, Cham, hal. 363–370.
- Lin, X., Bai, D., Wei, Z., Zhang, Y., Huang, Y., Deng, H., dkk., 2019. Curcumin attenuates oxidative stress in RAW264.7 cells by increasing the activity of antioxidant enzymes and activating the Nrf2-Keap1 pathway. *PLOS ONE*, 14: e0216711.
- Maryam, S. dan Martiningsih, 2021. Antioxidant activity and total fenol content white saffron (*Curcuma mangga* Val). *IOP Conference Series: Materials Science and Engineering*, 1115: 012081.
- McKinnon, K.M., 2018. Flow Cytometry: An Overview. *Current Protocols in Immunology*, **120**: .
- Menkes RI, 2016. Peraturan Menteri Kesehatan Republik Indonesia Nomor 6 Tahun 2016 Tentang Formularium Obat Herbal Asli Indonesia. Kementerian Kesehatan Republik Indonesia, 152.
- Morales, N.P., Sirijaroonwong, S., Yamanont, P., dan Phisalaphong, C., 2015. Electron Paramagnetic Resonance Study of the Free Radical Scavenging Capacity of Curcumin and Its Demethoxy and Hydrogenated Derivatives. *Biological & Pharmaceutical Bulletin*, 38: 1478–1483.
- Moreira, F.T.C., Guerreiro, J.R.L., Barros, R., dan Sales, M.G.F., 2012. The effect of method, standard and sample components on the total antioxidant capacity of commercial waters assessed by optical conventional assays. *Food Chemistry*, 134: 564–571.
- Muchtaromah, B., Mutmainah, F.N., Prahardika, B.A., dan Ahmad, M., 2020a. Antioxidant and Antifungal Activities of Temu mangga (*Curcuma mangga* Val.) Extract in Some Solvents. *Iranian Journal of Pharmaceutical Sciences*, 16: 18.
- Muchtaromah, B., Safitri, E.S., Fitriasari, P.D., dan Istiwandhani, J., 2020b. 'Antibacterial activities of *Curcuma mangga* Val. extract in some solvents to *Staphylococcus aureus* and *Escherichia coli*', . Dipresentasikan pada *Proceedings Of The 3rd International Seminar On Metallurgy And Materials (ISMM2019): Exploring New Innovation in Metallurgy and Materials*,

Tangerang Selatan, Indonesia, hal. 030005.

- Muchtaromah, B., Wahyudi, D., Ahmad, M., Muhammad Ansori, A.N., Annisa, R., dan Hanifah, L., 2021. Chitosan-Tripolyphosphate Nanoparticles of Mango Ginger (*Curcuma mangga*) Extract: Phytochemical Screening, Formulation, Characterization, and Antioxidant Activity. *Pharmacognosy Journal*, 13: 1065–1071.
- Neha, K., Haider, M.R., Pathak, A., dan Yar, M.S., 2019. Medicinal prospects of antioxidants: A review. *European Journal of Medicinal Chemistry*, 178: 687–704.
- Nguyen, T.V. dan Alfaro, A.C., 2019. Applications of flow cytometry in molluscan immunology: Current status and trends. *Fish & Shellfish Immunology*, 94: 239–248.
- Nimse, S.B. dan Pal, D., 2015. Free radicals, natural antioxidants, and their reaction mechanisms. *RSC Advances*, 5: 27986–28006.
- Nogueira, V. dan Hay, N., 2013. Molecular Pathways: Reactive Oxygen Species Homeostasis in Cancer Cells and Implications for Cancer Therapy. *Clinical Cancer Research*, 19: 4309–4314.
- Nwachukwu, I.D., Sarteshnizi, R.A., Udenigwe, C.C., dan Aluko, R.E., 2021. A Concise Review of Current In Vitro Chemical and Cell-Based Antioxidant Assay Methods. *Molecules*, 26: 4865.
- Pereira, D., Valentão, P., Pereira, J., dan Andrade, P., 2009. Phenolics: From Chemistry to Biology. *Molecules*, 14: 2202–2211.
- Pizzino, G., Irrera, N., Cucinotta, M., Pallio, G., Mannino, F., Arcoraci, V., dkk., 2017. Oxidative Stress: Harms and Benefits for Human Health. *Oxidative Medicine and Cellular Longevity*, 2017: 1–13.
- Pujimulyani, D., 2006. Sifat Antioksidatif Ekstrak Kunir Putih (*Curcuma mangga* Val.) dengan Pelarut Aseton, Etanol atau Metanol 6.
- Pujimulyani, D., Wazyka, A., Anggrahini, S., dan Santoso, U., 2004. Antioxidant Properties of White Saffron Extract (*Curcuma mangga* Val) in The beta-Carotene Bleaching and DPPH-radical Scavenging Methods. *Indonesian Food and Nutrition Progress*, 11: 35–40.
- Pujimulyani, Raharjo, S., Marsono, Y., dan Santoso, U., 2013a. The Effect of Size Reduction and Preparation Duration on The Antioxidant Activity of White Saffron (*Curcuma mangga* Val.) 4.
- Rohman, A., Widodo, H., Lukitaningsih, E., Rafi, M., A.F., N., dan Windarsih, A.,

2019. Review on in vitro antioxidant activities of *Curcuma* species commonly used as herbal components in Indonesia. *Food Research*, 4: 286–293.
- Sadeer, N.B., Montesano, D., Albrizio, S., Zengin, G., dan Mahomoodally, M.F., 2020. The Versatility of Antioxidant Assays in Food Science and Safety—Chemistry, Applications, Strengths, and Limitations. *Antioxidants*, 9: 709.
- Sandur, S.K., Pandey, M.K., Sung, B., Ahn, K.S., Murakami, A., Sethi, G., dkk., 2007. Curcumin, demethoxycurcumin, bisdemethoxycurcumin, tetrahydrocurcumin and turmerones differentially regulate anti-inflammatory and anti-proliferative responses through a ROS-independent mechanism. *Carcinogenesis*, 28: 1765–1773.
- Santos, J.S., Alvarenga Brizola, V.R., dan Granato, D., 2017. High-throughput assay comparison and standardization for metal chelating capacity screening: A proposal and application. *Food Chemistry*, 214: 515–522.
- Schieber, M. dan Chandel, N.S., 2014. ROS Function in Redox Signaling and Oxidative Stress. *Current Biology*, 24: R453–R462.
- Shafirany, M.Z., Susilawati, Y., dan Musfiroh, I., 2019. Aplikasi Kemometrik dalam Penentuan Mutu Tumbuhan Obat. *Pharmauho: Jurnal Farmasi, Sains, dan Kesehatan*, 4: .
- Shahidi, F., 2015. Antioxidants, dalam: *Handbook of Antioxidants for Food Preservation*. Elsevier, hal. 1–14.
- Sharifi-Rad, M., Anil Kumar, N.V., Zucca, P., Varoni, E.M., Dini, L., Panzarini, E., dkk., 2020. Lifestyle, Oxidative Stress, and Antioxidants: Back and Forth in the Pathophysiology of Chronic Diseases. *Frontiers in Physiology*, 11: 694.
- Sotler, R., 2019. Prooxidant Activities of Antioxidants and Their Impact on Health. *Acta Clinica Croatica*, 58: .
- Srirod, S. dan Tewtrakul, S., 2019. Anti-inflammatory and wound healing effects of cream containing *Curcuma mangga* extract. *Journal of Ethnopharmacology*, 238: 111828.
- taciak, B., Bialasek, M., Braniewska, A., Sas, Z., Sawicka, P., Kiraga, L., dkk., 2018. Evaluation of phenotypic and functional stability of RAW 264.7 cell line through serial passages. *PLOS ONE*, 13: .
- To, E.E., O’Leary, J.J., O’Neill, L.A.J., Vlahos, R., Bozinovski, S., Porter, C.J.H., dkk., 2020. Spatial Properties of Reactive Oxygen Species Govern Pathogen-Specific Immune System Responses. *Antioxidants & Redox Signaling*, 32: 982–992.

- Ummat, V., Tiwari, B.K., Jaiswal, A.K., Condon, K., Garcia-Vaquero, M., O'Doherty, J., dkk., 2020. Optimisation of Ultrasound Frequency, Extraction Time and Solvent for the Recovery of Polyphenols, Phlorotannins and Associated Antioxidant Activity from Brown Seaweeds. *Marine Drugs*, 18: 250.
- Wang, L., Ding, L., Yu, Z., Zhang, T., Ma, S., dan Liu, J., 2016. Intracellular ROS scavenging and antioxidant enzyme regulating capacities of corn gluten meal-derived antioxidant peptides in HepG2 cells. *Food Research International*, 90: 33–41.
- Xu, B., Feng, M., Tiliwa, E.S., Yan, W., Wei, B., Zhou, C., dkk., 2022. Multi-frequency power ultrasound green extraction of polyphenols from Pingyin rose: Optimization using the response surface methodology and exploration of the underlying mechanism. *LWT*, 156: 113037.
- Zaccchaeus S, O., Esther O, A., Iyadunni A, A., Oluwafunmilayo O, A., dkk., 2020. Secondary Metabolites, Pharmacognostic and Therapeutic Activities of the Rhizome Extract of *Curcuma longa* Grown in South-West, Nigeria. *The Journal of Phytopharmacology*, 9: 30–37.
- Zhou, T.-Y., Xiang, X.-W., Du, M., Zhang, L.-F., Cheng, N.-X., Liu, X.-L., dkk., 2019. Protective effect of polysaccharides of sea cucumber *Acaudina leucoprocta* on hydrogen peroxide-induced oxidative injury in RAW264.7 cells. *International Journal of Biological Macromolecules*, **139**: 1133–1140.