

Bibliography

- Alam, Md.N., Bristi, N.J., and Rafiquzzaman, Md., 2013. Review on *in vivo* and *in vitro* methods evaluation of antioxidant activity. *Saudi Pharmaceutical Journal*, **21**: 143–152.
- American Type Culture Collection, 2021, RAW 264.7-TIB-71: Product Sheet, ATCC, Virginia, United States.
- Barańska, J.K., Boguszevska, K., Adamus-Grabicka, A., and Karwowski, B.T., 2020. Two Faces of Vitamin C—Antioxidative and Pro-Oxidative Agent. *Nutrients*, **12**: 1501.
- Benzie, I.F. and Strain, J.J., 1996. The ferric reducing ability of plasma (FRAP) as a measure of “antioxidant power”: The FRAP assay. *Anal. Biochem.*, **239**, 70–76.
- Bhaskaran, N., Shukla, S., Kanwal, R., Srivastava, J.K., and Gupta, S., 2012. Induction of heme oxygenase-1 by chamomile protects murine macrophages against oxidative stress. *Life Sciences*, **90**: 1027–1033.
- Bowdish, D., 2013. Propagation & Culturing Of RAW 264.7 Cells, *Bowdish Laboratory*, Canada.
- Chen, L.-X., He, H., Xia, G.-Y., Zhou, K.-L., and Qiu, F., 2014. A new flavonoid from the aerial parts of *Andrographis paniculata*. *Natural Product Research*, **28**: 138–143.
- Chiou, W.-F., Chen, C.-F., and Lin, J.-J., 2000. Mechanisms of suppression of inducible nitric oxide synthase (iNOS) expression in RAW 264.7 cells by andrographolide: Inhibition of iNOS expression by andrographolide. *British Journal of Pharmacology*, **129**: 1553–1560.
- Dahana, K., 2020. Budidaya Tanaman Obat: Sambiloto
- Dalawai, D., Aware, C., Jadhav, J.P., and Murthy, H.N., 2021. RP-HPLC analysis of diterpene lactones in leaves and stem of different species of *Andrographis*. *Natural Product Research*, **35**: 2239–2242.
- Dalawai, D. and Niranjana Murthy, H., 2020. Chemical Profile and Antioxidant Properties of *Andrographis producta* (C. B. Clarke) Gamble. *Pharmacognosy Journal*, **13**: 475–485.
- Deutsch, J.C., 1998. Ascorbic Acid Oxidation by Hydrogen Peroxide. *Analytical Biochemistry*, **255**: 1–7.

- Dinis, T.C.P., Madeira, V.M.C., Almeida, L.M., 1994. Action of phenolic derivatives (Acetaminophen, Salicylate, and 5-Aminosalicylate) as inhibitors of membrane lipid peroxidation and as peroxy radical scavengers. *Arch. Biochem. Biophys.* 315, 161–169.
- Du, Y.-T., Long, Y., Tang, W., Liu, X.-F., Dai, F., and Zhou, B., 2022. Prooxidative inhibition against NF- κ B-mediated inflammation by pharmacological vitamin C. *Free Radical Biology and Medicine*, **180**: 85–94.
- Dueñas, M., González-Manzano, S., González-Paramás, A., dan Santos-Buelga, C., 2010. Antioxidant evaluation of O-methylated metabolites of catechin, epicatechin and quercetin. *Journal of Pharmaceutical and Biomedical Analysis*, **51**: 443–449.
- Eruslanov, E. and Kusmartsev, S., 2010. Identification of ROS Using Oxidized DCFDA and Flow-Cytometry, dalam: Armstrong, D. (Editor), *Advanced Protocols in Oxidative Stress II, Methods in Molecular Biology*. Humana Press, Totowa, NJ, hal. 57–72.
- Evans, C.R., 2001. Flavonoid Antioxidants. *Current Medicinal Chemistry*, **8**: 797–807.
- Fitrasyah, S.I., Ariani, A., Rahman, N., Nurulfuadi, N., Aiman, U., Nadila, D., *et al.*, 2021. Analysis of Chemical Properties and Antioxidant Activity of Sambiloto (*Andrographis paniculata* Nees.) Leaf Tea Formula as a Functional Drink in Preventing Coronavirus Diseases and Degenerative Diseases. *Open Access Macedonian Journal of Medical Sciences*, 9: 196–201.
- Gan, L., Zheng, Y., Deng, L., Sun, P., Ye, J., Wei, X., *et al.*, 2019. Diterpenoid Lactones with Anti-Inflammatory Effects from the Aerial Parts of *Andrographis paniculata*. *Molecules*, 24: 2726.
- Gani, A.P., 2016. Optimasi Ekstraksi dan Penelusuran Fraksi Aktif Herba Sambiloto (*Andrographis paniculata* Nees.) dan Patikan Kebo (*Euphorbia hirta* L.): Studi *In Vitro* Efek Fagositosis Makrofag. *Dissertation*. Universitas Gadjah Mada, Yogyakarta.
- Gani, A.P., Pramono, S., Martono, S., and Widyarini, S., 2018. Radical Scavenging Activity Combination of Sambiloto (*Andrographis paniculata* Nees.) and Patikan Kebo (*Euphorbia hirta* L.) Ethanolic Extracts on 2,2-Diphenyl-1-Picrylhydrazyl (DPPH). *Majalah Obat Tradisional*, **23**
- Halliwell, B., 2003. Oxidative stress in cell culture: an under-appreciated problem? *FEBS Letters*, 540: 3–6.

- Hossain, S., Urbi, Z., Karuniawati, H., Mohiuddin, R.B., Moh Qrimida, A., Allzrag, A.M.M., *et al.*, 2021. *Andrographis paniculata* (Burm. f.) Wall. ex Nees: An Updated Review of Phytochemistry, Antimicrobial Pharmacology, and Clinical Safety and Efficacy. *Life*, **11**: 348.
- Hwang, K.-A., Hwang, Y.-J., 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.
- Indonesian Herbal Pharmacopoeia, 2017, Farmakope Herbal Indonesia, Edisi II, *Departemen Kesehatan Republik Indonesia*, Jakarta.
- Javanmardi, J., Stushnoff, C., Locke, E., and Vivanco, J.M., 2003. Antioxidant activity and total phenolic content of Iranian *Ocimum* accessions. *Food Chemistry*, **4**.
- Jovanovic, A., Petrovic, P., Đordjevic, V., Zdunic, G., Savikin, K., Bugarski, B., 2017. Polyphenols extraction from plant sources. *Lekovite sirovine*, **45–49**.
- Kozlov, A.B., Ostrachovitch, E.A., dan Afanas'ev, I.B., 1994. Mechanism of inhibitory effects of chelating drugs on lipid peroxidation in rat brain homogenates. *Biochemical Pharmacology*, **47**: 795–799.
- Kwaffo, Y.A., Sarpong-Duah, M., Owusu-Boateng, K., Gbewonyo, W.S., Adjimani, J.P., and Mosi, L., 2021. Natural antioxidants attenuate mycolactone toxicity to RAW 264.7 macrophages. *Experimental Biology and Medicine*, **246**: 1884–1894.
- Li, Y., Li, X.-L., Lai, C.-J.-S., Wang, R.-S., Kang, L.-P., Ma, T., *et al.*, 2019. Functional characterization of three flavonoid glycosyltransferases from *Andrographis paniculata*. *Royal Society Open Science*, **6**: 190150.
- Low, M., Khoo, C.S., Münch, G., Govindaraghavan, S., and Sucher, N.J., 2015. An *in vitro* study of anti-inflammatory activity of standardized *Andrographis paniculata* extracts and pure andrographolide. *BMC Complementary and Alternative Medicine*, **15**: 18.
- Ma, SC, Liu Y, Pui-Hay PB, Yang Y, Eng-Chun VO, Lee SHS, Lee SF, Lu J, Lin RC. 2006. Antiviral activities of flavonoids isolated from *Lonicera japonica* Thunb. *Yaowu Fenxi Zazhi*. **26**:426–430.
- Miftahuddin, Pratama, A., dan Setiawan, I., 2021. Analisis Hubungan Antara Kelembaban Relatif Dengan Beberapa Variabel Iklim Dengan Pendekatan Korelasi Pearson Di Samudera Hindia **02**: 9.

- Mussard, E., Jousselin, S., Cesaro, A., Legrain, B., Lespessailles, E., Esteve, E., *et al.*, 2020. *Andrographis paniculata* and Its Bioactive Diterpenoids Protect Dermal Fibroblasts against Inflammation and Oxidative Stress. *Antioxidants*, 9: 432.
- Moturu, R., Kamath, and S., Hasan, S. 2019. Fluorescence Activated Cell Sorting (FACS), *Research Gate*
- Nawar, W.F., 1996. Lipids. In: Fennema O, editor. *Food chemistry*. 3rd ed. New York: Marcel Dekker, Inc. p 225–320.
- Ngo, B., Van Riper, J.M., Cantley, L.C., dan Yun, J., 2019. Targeting cancer vulnerabilities with high-dose vitamin C. *Nature Reviews Cancer*, **19**: 271–282.
- Pehlivan, F.E., 2017. Vitamin C: An Antioxidant Agent, dalam: Hamza, A.H. (Editor), Vitamin C. *InTech*.
- Pękal, A. and Pyrzynska, K., 2014. Evaluation of Aluminium Complexation Reaction for Flavonoid Content Assay. *Food Analytical Methods*, 7: 1776–1782.
- Pham-Huy, L.A., He, H., and Pham-Huy, C., 2008. Free Radicals, Antioxidants in Disease and Health. *Free Radicals and Antioxidants*, 4: 8.
- Pietta, P.-G., 2000. Flavonoids as Antioxidants. *Journal of Natural Products*, **63**: 1035–1042.
- Prieto, P., Pineda, M., and Aguilar, M., 1999. Spectrophotometric Quantitation of Antioxidant Capacity through the Formation of a Phosphomolybdenum Complex: Specific Application to the Determination of Vitamin E. *Analytical Biochemistry*, 269: 337–341.
- Procházková, D., Boušová, I., dan Wilhelmová, N., 2011. Antioxidant and prooxidant properties of flavonoids. *Fitoterapia*, **82**: 513–523.
- Qiang, Z. Z., 2007, Reactions and Computational Studies of Andrographolide Analogues with Glutathione and Biological Nucleophiles, *Dissertation*, City University of Hong Kong.
- Ramasamy, J., Kandasamy, R., Palanisamy, S., and Nadesan, S., 2019. Optimization of ultrasonic-assisted extraction of flavonoids and antioxidant capacity from the whole plant of *Andrographis echinoides* (L.) nees by response surface methodology and chemical composition analysis. *Pharmacognosy Magazine*, 15: 547.

- Sadeer, N.B., Montesano, D., Albrizio, S., Zengin, G., and Mahomoodally, M.F., 2020. The Versatility of Antioxidant Assays in Food Science and Safety—Chemistry, Applications, Strengths, and Limitations. *Antioxidants*, **9**: 709.
- Sastrohamidjojo, H., 2001, Spektroskopi, *Liberty Press*, Yogyakarta, 11, 3-4.
- Selawa, W., Runtuwene, M.R.J., and Citraningtyas, G., 2013. Kandungan Flavonoid Dan Kapasitas Antioksidan Total Ekstrak Etanol Daun Binahong
- Shraim, A.M., Ahmed, T.A., Rahman, M.M., and Hijji, Y.M., 2021. Determination of total flavonoid content by aluminum chloride assay: A critical evaluation. *LWT*, **150**: 111932.
- Sheeja, K., Shihab, P.K., and Kuttan, G., 2006. Antioxidant and Anti-Inflammatory Activities of the Plant *Andrographis Paniculata* Nees. *Immunopharmacology and Immunotoxicology*, **28**: 129–140.
- Susanti, N.M.P., Warditjan, N.K., and Wirasuta, I.M.A.G., 2017. ANTIOXIDANT ACTIVITY TEST OF ANDROGRAPHOLIDE IN BITTER HERBS USING DPPH SCAVENGING. *Journal of Health Sciences and Medicine*, **1**: 9.
- Tomczyk, M.O., 2021. How to express the antioxidant properties of substances properly? *Chemical Papers*, **75**: 6157–6167.
- Ummat, V., Tiwari, B.K., Jaiswal, A.K., Condon, K., Garcia-Vaquero, M., O'Doherty, J., *et al.*, 2020. Optimization 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, T., Jónsdóttir, R., dan Ólafsdóttir, G., 2009. Total phenolic compounds, radical scavenging, and metal chelation of extracts from Icelandic seaweeds. *Food Chemistry*, **116**: 240–248.
- Wang, T., Li, Q., and Bi, K., 2018. Bioactive flavonoids in medicinal plants: Structure, activity, and biological fate. *Asian Journal of Pharmaceutical Sciences*, **13**: 12–23.
- Xu, B., Feng, M., Tiliwa, E.S., Yan, W., Wei, B., Zhou, C., *et al.*, 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.
- Zeb, A., 2020. Concept, mechanism, and applications of phenolic antioxidants in foods. *Journal of Food Biochemistry*, **44**.