

5. DAFTAR PUSTAKA

- Abbas AK, Lichtman AH, Pillai S. (2014) Introduction to the immune system. Basic immunology functions and disorders of the immune system. Edisi ke-4. Philadelphia: Elsevier Saunders; h.1-22.
- Abdallah, EM. 2015. Antibacterial activity of *Hibiscus sabdariffa L.* calyces against hospital isolates of multidrug resistant *Acinetobacter baumannii*. Journal of Acute Disease, 5(6):512±516.
- Afifah, E. dan Tim Lentera. 2003. Khasiat dan Manfaat Temulawak; Rimpang Penyembuh Aneka Penyakit. Penerbit PT Agro Media Pustaka, Jakarta. hlm. 76.
- Agoes.G.2007. *Teknologi Bahan Alam*, ITB Press Bandung.
- Alamdari, D. H., Moghaddam, A. B., Amini, S., Keramati, M. R., Zarmehri, A. M., Alamdari, A. H., ... & Koliakos, G. (2020). Application of methylene blue-vitamin C-N-acetyl cysteine for treatment of critically ill COVID-19 patients, report of a phase-I clinical trial. European journal of pharmacology, 885, 173494.10
- Andarwulan, N. dan Fitri, F., 2012. Pewarna Alami Untuk Pangan, Bogor: Institut Pertanian Bogor.
- Astana, P. R., Ardiyanto, D., & Mana, T. A. (2018). Perubahan Kualitas Hidup dan Nilai CD4+ Pasien HIV/AIDS dengan Pemberian Ramuan Jamu Imunostimulan di Sragen. Indonesian Journal of Clinical Pharmacy, 7(4), 227-235.
- Azemi, N., Basar, N., & Toemen, S. (2020). A ULTRASOUND-ASSISTED EXTRACTION (UAE) OF PHYTOCHEMICALS WITH RESPONSE SURFACE METHODOLOGY (RSM) IN Curcuma xanthorrhiza. Science Proceedings Series, 2(2), 139-146.
- Baatartsogt, T., Bui, V. N., Trinh, D. Q., Yamaguchi, E., Gronsang, D., Thampaisarn, R., ... & Imai, K. (2016). High antiviral effects of hibiscus tea extract on the H5 subtypes of low and highly pathogenic avian influenza viruses. Journal of Veterinary Medical Science, 16-0124.

Baratawidjaja, K.G., & Rengganis, I., 2012, Imunologi Dasar, edisi ke-10, Balai Penerbit Fakultas Kedokteran Universitas Indonesia, Jakarta. 29-32, 39, 93-147.

Bordoni, V., Tartaglia, E., Sacchi, A., Fimia, G. M., Cimini, E., Casetti, R., & Agrati, C. (2021). The unbalanced p53/SIRT1 axis may impact lymphocyte homeostasis in COVID-19 patients. International Journal of Infectious Diseases, 105, 49-53.

Cataldi, T. R., Campa, C., & De Benedetto, G. E. (2000). Carbohydrate analysis by high-performance anion-exchange chromatography with pulsed amperometric detection: the potential is still growing. Fresenius' journal of analytical chemistry, 368(8), 739-758.

Chairunnissa, S., Wartini, N. M., & Suhendra, L. (2019). Pengaruh Suhu dan Waktu Maserasi terhadap Karakteristik Ekstrak Daun Bidara (*Ziziphus mauritiana* L.) sebagai Sumber Saponin. Jurnal Rekayasa dan Manajemen Agroindustri ISSN, 2503, 488X.

Cheah, Y.H., H.L. Azimahtol, and N.R. Abdullah. 2006. *Xanthorrhizol* exhibits antiproliferative activity on MCF-7 breast cancer cells via apoptosis induction. J. Anticancer Res. 26: 4527–4534.

Chen, G., Wu, D., Guo, W., Cao, Y., Huang, D., Wang, H., Wang, T., Zhang, X., Chen, H., Yu, H., Zhang, X., Zhang, M., Wu, S., Song, J., Chen, T., Han, M., Li, S., Luo, X., Zhao, J., & Ning, Q. (2020). Clinical and immunological features of severe and moderate coronavirus disease 2019. The Journal of clinical investigation, 130(5), 2620– 2629.

Chiang, L.C., Ng, L.T., Chiang, W., Chang, M.Y., and Lin, C.C., 2003, Immunomodulatory Activities of Flavonoids, Monoterpeneoids, Triterpenoids, Iridoid Glycosides and Phenolic Compounds of Plantago Species, Planta Med, 69, 600-604.

Choi, M.A., Kim S.H., Chung W.Y., Hwang J.K., and Park, K.K. 2004. Xanthorrhizol, a natural sesquiterpenoid from Curcuma xanthorrhiza, has an anti-metastatic potential in experimental mouse lung metastasis model. J. Biochem. Biophys. Res. Comm. 326(1): 210–217.

Choi, S., Kim, M., Kim, C., Hwang, J. K., & Kang, W. (2017). Quantitative determination of xanthorrhizol in rat plasma by HPLC–MS/MS and its application to a pharmacokinetic study. Journal of pharmaceutical and biomedical analysis, 132, 56-59.

- Chung, W. Y., Park, J. H., Kim, M. J., Kim, H. O., Hwang, J. K., Lee, S. K., & Park, K. K. (2007). Xanthorrhizol inhibits 12-O-tetradecanoylphorbol-13-acetate-induced acute inflammation and two-stage mouse skin carcinogenesis by blocking the expression of ornithine decarboxylase, cyclooxygenase-2 and inducible nitric oxide synthase through mitogen-activated protein kinases and/or the nuclear factor- κ B. *Carcinogenesis*, 28(6), 1224-1231.
- Clarke E.C., Nofchissey R.A., Ye C., Bradfute S.B. (2020). The iminosugars celgosivir, castanospermine and UV-4 inhibit SARS-CoV 2 replication. *Glycobiology*.
- Dalimartha, S. 2000. *Atlas Tumbuhan Obat Indonesia*. Cetakan 1. Jilid 2. Trubus Agriwidya, Jakarta. 214 hlm.
- DeDiego ML, Nieto-Torres JL, Regla-Nava JA, Jimenez-Guardeno JM, Fernandez-Delgado R, Fett C, Castano-Rodriguez C, Perlman S, Enjuanes L. (2014). Inhibition of NF- κ B-mediated inflammation in severe acute respiratory syndrome coronavirus-infected mice increases survival. *J Virol*;88(2):913–924.
- Djaeni, M., Ariani, N., Hidayat, R., & Utari, F. (2017). Ekstraksi antosianin dari kelopak bunga rosella (*Hibiscus sabdariffa* L.) berbantu ultrasonik: Tinjauan aktivitas antioksidan. *Jurnal Aplikasi Teknologi Pangan*, 6(3).
- Erpina, E., Rafi, M., Darusman, L. K., Vitasari, A., Putra, B. R., & Rohaeti, E. (2017). Simultaneous quantification of curcuminoids and xanthorrhizol in *Curcuma xanthorrhiza* by high-performance liquid chromatography. *Journal of Liquid Chromatography & Related Technologies*, 40(12), 635-639.
- Fakeye, T.O., Pal, A., Bawankule, D.U., and Khanuja, S.P.S, 2008, Immunomodulatory Effect of Extracts of *Hibiscus sabdariffa* L. (Family Malvaceae) in a Mouse Model, *Phytotherapy Research*. 22, 664–668.
- Falahudin, I. (2016). Efektivitas Larutan Temulawak (*Curcuma Xanthorrhiza* Roxb.) Terhadap Peningkatan Jumlah Leukosit Ayam Broiler (*Gallus Gallus Domestica* SP.). *Jurnal Biota*, 2(1), 68-75.
- Fatmawati DA. 2008. Pola protein dan kandungan kurkuminoid rimpang temulawak (*Curcuma Xanthorrhiza* Roxb.). Bogor:

Program Sarjana Fakultas Teknologi Pertanian, Institut Pertanian Bogor.

- Fifield, F. W., & Kealey, D. 2000. Principles and practice of analytical chemistry. Blackie academic & professional.
- Gong, J., Dong, H., Xia, S. Q., Huang, Y. Z., Wang, D., Zhao, Y., & Lu, F. (2020). Correlation analysis between disease severity and inflammation-related parameters in patients with COVID-19 pneumonia. MedRxiv.
- Hanani, E. 2015. Analisa Fitokimia. Penerbit Buku Kedokteran EGC: Jakarta.
- Handa SS, Khanuja SPS, Longo G, Rakesh DD. (2008). Extraction Technologies for Medicinal and Aromatic Plants, (1stedn), no. 66. Italy: United Nations Industrial Development Organization and the International Centre for Science and High Technology.
- He, B., Zhang, L., Yue, X., Liang, J., Jiang, J., Gao, X., Yue, P. (2016). Optimization of ultrasoundassisted extraction of phenolic compounds and anthocyanins from blueberry (*Vaccinium ashei*) wine pomace. Food Chemistry, 204, 70-76.
- He, Z., Zhao, C., Dong, Q., Zhuang, H., Song, S., Peng, G., & Dwyer, D. E. (2005). Effects of severe acute respiratory syndrome (SARS) coronavirus infection on peripheral blood lymphocytes and their subsets. International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases, 9(6), 323–330.
- Hernani. 2001. Temulawak (*Curcuma xanthorrhiza Roxb*), Tumbuhan Obat Indonesia; Penggunaan dan Khasiatnya. Pustaka Populer Obor. Jakarta. hlm. 130–132.
- Hilal, N., Ismail, A. F., Matsuura, T., & Oatley-Radcliffe, D. (Eds.). (2017). Membrane characterization. Elsevier.
- Huang, C., Wang, Y., Li, X., Ren, L., Zhao, J., Hu, Y., ... & Cao, B. (2020). Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. The lancet, 395(10223), 497-506.

- Jayaprakasha, G.K., L.J.M. Rao, and K.K. Sakariah. 2005. Chemistry and biological activities of *C. longa*. Trends Food Sci. Technol. 16: 533–548
- Kelloff, G.J., J.A. Crowell, V.E. Steele, R.A. Lubert, W.A. Malone, C.W. Boone, L. Kopelovich, E.T. Hawk, R. Lieberman, J.A. Lawrence, I. Ali, J.L. Viner, and C.C. Sigman. 2000. Progress in cancer chemoprevention: Development of diet-derived chemopreventive agents. Symposium on Diet, Natural Products and Cancer Prevention: Progress and Promise. J Nutr. American Society for Nutritional Science 130(2): 467–471.
- Khaerana, M. Ghulamahdi, dan E.D. Purwakusumah. 2008. Pengaruh cekaman kekeringan dan umur panen terhadap pertumbuhan dan kandungan xanthorrhizol temulawak (*Curcuma xanthorrhiza Roxb*). Buletin Agronomi 36(3): 241–247.
- Khamidah, A., Antarlina, S. S., & Sudaryono, T. (2017). Ragam Produk Olahan Temulawak Untuk Mendukung Keanekaragaman Pangan. Jurnal Penelitian Dan Pengembangan Pertanian, 36(1), 1-12.
- Kim AJ, Kim YO, Shim JS, Hwang JK. 2007. Immunostimulating polysaccharide extract isolated from *Curcuma xanthorrhiza Roxb*. Biosci Biotechnol Biochem.71(6):1428 1438.
- Kosim L, Priosoeryanto BP, Purwakusumah ED. 2007. Potensi Temulawak Testandar Untuk Menanggulangi Flu Burung. [Laporan penelitian]. Bogor (ID): Pusat Studi Biofarmaka, Institut Pertanian Bogor.
- Kwon H. S., Brent M. M., Getachew R., Jayakumar P., Chen L. F., Schnolzer M., et al. . (2008). Human immunodeficiency virus type 1 tat protein inhibits the sirt1 deacetylase and induces t cell hyperactivation. Cell Host Microbe 3, 158–167. 10.1016/j.chom.
- Kumavat, Suresh D, , Yogesh S, Chaudhari., Priyanka, Borole, Preetesh, Mishra., Khusbu, Shenghani & Pallavi, Duvvuri. 2013. Degradation Studies of Curcumin International Journal of Pharmacy Review & Research 3, 50-55.

- Kusbiantoro, D. (2018). Pemanfaatan kandungan metabolit sekunder pada tanaman kunyit dalam mendukung peningkatan pendapatan masyarakat. *Kultivasi*, 17(1), 544-549.
- Laing, K. 2010. Immune responses to viruses, Bitesized Immunology. British Society for Immunology.
- Lee JY, Bae S, Myoung J. (2019). Middle East Respiratory Syndrome coronavirus-encoded accessory proteins impair MDA5-and TBK1-mediated activation of NF-kappaB. *J Microbiol Biotechnol*;29(8):1316–1323.
- Lin, H. H., Chen, J. H., Kuo, W. H., & Wang, C. J. (2007). Chemopreventive properties of *Hibiscus sabdariffa* L. on human gastric carcinoma cells through apoptosis induction and JNK/p38 MAPK signaling activation. *Chemico-biological interactions*, 165(1), 59-75.
- Mahadevan, N, Shivali, P&Kamboj. 2009. *Hibiscus sabdariffa* Linn., An overview, *Natural Product Radiance*, 8(1):77±83.
- Mardhiyani, D., Darmawan, E., & Akrom, A. (2018). The Effect of Rosella (*Hibiscus sabdariffa* L.) Powder on CD4 Counts in Healthy Volunteers. *JURNAL ILMU KEFARMASIAN INDONESIA*, 16(2), 194-199.
- Mardiah, M., Novidahlia, N., & Mashudi, M. (2017). Penentuan Metode Pengeringan (Cabinet Dryer Dan Fluidized Bed Dryer) Terhadap Komponen Dan Kapasitas Antioksidan Pada Rosella Kering (*Hibiscus sabdariffa* L). *Jurnal Pertanian*, 3(2), 104-110.
- Mardiah, M., Nur'utami, D. A., & Hastuti, A. (2019). PENGARUH PEMERIAN SERBUK EKSTRAK KELOPAK BUNGA ROSELA (*Hibiscus sabdariffa* L.) TERHADAP SISTEM IMUN TIKUS SPRAGUE DAWLEY. *JURNAL AGROINDUSTRI HALAL*, 5(1), 017-029.
- Maryani H, Kristina L. 2008. Khasiat dan Manfaat Rosella. Jakarta : Agromedia Pustaka.

Mendes KL, de Farias Lelisc D, Sousa Santos SH. Nuclear sirtuins and inflammatory Signaling pathways. *Cytokine Growth Factor Rev* 2017;38:98–105.

Merza, M. Y., Hwaiz, R. A., Hamad, B. K., Mohammad, K. A., Hama, H. A., & Karim, A. Y. (2021). Analysis of cytokines in SARS-CoV-2 or COVID-19 patients in Erbil city, Kurdistan Region of Iraq. *Plos one*, 16(4), e0250330.

Moehady, B. I. 2015. Serbuk Temulawak Sebagai Bahan Baku Minuman. In Prosiding Industrial Research Workshop and National Seminar (Vol. 6, pp. 55-60).

Mourtzinos I, Makris DP, Yannakopoulou K, Kalogeropoulos N, Michali I, Karathsnos VT. 2008. Thermal stability of anthocyanin extract of *Hibiscus sabdariffa* L.in the presence of β -Cyclodextrin. *J Agric Food Chem*. 56: 10303-10310.

Munasir, Zakiudin. 2001. Respons Imun Terhadap Infeksi Bakteri. *Sari Pediatri*, Vol. 2, No. 4, 193 – 197.

Mustikhasary A. 2013. Penambahan Bunga Rosella (*Hibiscus sabdariffa* L) Pada Pakan Terhadap Ketahanan Tubuh Ikan Gurami (*Oosphronemus gouramy*) yang Diuji Tantang dengan Bakteri Aeromonas hydrophila. *Mirna Science* Vol 1, No.2.

Narkhede, M. B. (2012). Evaluation of the alpha-amylase inhibitory potential of four traditional culinary leaves. *Asian Journal of Pharmaceutical and Clinical Research*, 5(2), 75-76.

Nguyen, M. P. (2020). Mircowave-assisted extraction of phytochemical constituents in roselle (*Hibiscus sabdariffa* L.). *Journal of Pharmaceutical Research International* 32(2):1-12.

Nirmalasari, N., Ulfah, M., & Sasmito, E. (2013). Uji Aktivitas Imunostimulator Fraksi Etil Asetat Ekstrak Etanol Kelopak Bunga Rosella (*Hibiscus Sabdariffa* L.) Terhadap Proliferasi Sel Limfosit Mencit Galur Swiss Secara in Vitro Beserta Identifikasi Kandungan Senyawa Kimianya. *Jurnal Ilmu Farmasi dan Farmasi Klinik*, 10(1), 23-30.

- Nurcholis, W., Ambarsari, L., Permasku, G. I. A., Darusman, L. A. T. I. F. A. H., & KURNIATIN, P. A. (2017). Analisis Kandungan Kurkuminoid dan Penghambatan α -Glukosidase dari Ekstrak Beberapa Aksesi Temulawak (*Curcuma xanthorrhiza* Roxb.). *Jurnal Ilmu Kefarmasian Indonesia*, 13(2), 229-234.
- Nurhadi, B., Saputra, R. A., Setiawati, T. A., Husein, S. N., Faressi, F. R., Utari, C. D., ... & Setiasih, I. S. (2020, February). Comparison of *Curcuma domestica* and *Curcuma xanthorrhiza* oleoresins extracted using maceration, Soxhlet, and ultrasound-assisted extraction (UAE). In *IOP Conference Series: Earth and Environmental Science* (Vol. 443, No. 1, p. 012074). IOP Publishing.
- Nurcholis, W., Ambarsari, L., Permasku, G. I. A., K Darusman, L. A. T. I. F. A. H., & Kurniatin, P. A. (2017). Analisis Kandungan Kurkuminoid dan Penghambatan α -Glukosidase dari Ekstrak Beberapa Aksesi Temulawak (*Curcuma xanthorrhiza* Roxb.). *Jurnal Ilmu Kefarmasian Indonesia*, 13(2), 229-234.
- Nur, Y., & Fadraersada, J. (2018). Profil Stabilitas Ekstrak Bunga Rosella (*Hibiscus sabdariffa*) sebagai Kandidat Pewarna Lipstik. In *Proceeding of Mulawarman Pharmaceuticals Conferences* (Vol. 8, pp. 200-206).
- Notoatmodjo, S (2018). Metodologi Penelitian Kesehatan. Jakarta: Rineka Cipta.
- O. Werz, J. Gerstmeier, S. Libreros, et al. (2018). Human macrophages differentially produce specific resolvin or leukotriene signals that depend on bacterial pathogenicity. *Nat Commun*, 9 (1), p. 59
- Okasha MAM, Abubakar MS, Bako IG. 2008. Study of the Effect of Aqueous *Hibiscus sabdariffa* Linn Seed Extract on Serum Prolactin Level of Lactating Female Albino Rats. *European Journal of Scientific Research*. 2008. 22(4), 575-583.
- Park, J. H., Jung, Y. J., Shrestha, S., Lee, S. M., Lee, T. H., Lee, C. H., ... & Baek, N. I. (2014). Inhibition of NO production in LPS-stimulated RAW264. 7 macrophage cells with curcuminoids and xanthorrhizol from the rhizome of *Curcuma xanthorrhiza* Roxb. and quantitative analysis using HPLC. *Journal of the Korean Society for Applied Biological Chemistry*, 57(3), 407-412.

Parwanto, M. L. E. (2020). Virus Corona (2019-nCoV) Penyebab COVID-19. *Jurnal Biomedika dan Kesehatan*, 3(1), 1-2.

Paules CI, Marston HD, Fauci AS. 2020. Coronavirus Infections—More Than Just the Common Cold. *JAMA*. 2020;323(8):707–708. doi: 10.1001/jama.2020.0757. Polysaccharide extract isolated from *Curcuma xanthorrhiza Roxb.* Biosci Biotechnol Biochem. 71(6):1428 1438.

Pratiwi, D., Yuliani, R., dan Munawaroh, M.. (2011). Aktivitas Antibakteri Ekstrak Etanol Kelopak Rosella (*Hibiscus sabdariffa Linn*) Terhadap *Pseudomonas aeruginosa* Multiresisten Dan *Shigella dysenteriae*, Prosiding Seminar Nasional Perhimpunan Peneliti Bahan Obat Alami dan Kongres Nasional IV Obat Tradisional Indonesia, Fakultas Farmasi Universitas Muhamadiyah Surakarta, Surakarta.

Pratiwi, N. M. D. K., Ardana, I. B. K., & Kade, I. B. (2019). Penambahan tepung temulawak dalam pakan meningkatkan respons imun ayam pedaging pascavaksinasi flu burung. *Indonesia Medicus Veterinus*, 8(1), 72-78.

Purbowati, I. S. M., & Maksum, A. (2019). The antioxidant activity of Roselle (*Hibiscus sabdariffa Linii*) phenolic compounds in different variations microwave-assisted extraction time and power. In *IOP Conference Series: Earth and Environmental Science* (Vol. 406, No. 1, p. 012005). IOP Publishing.

Purbowati, I. S. M., K. Syamsu, E. Warsiki, and H. Sri. 2016. Stabilitas Senyawa Fenolik dalam Ekstrak dan Nanokapsul Kelopak Bunga Rosella pada Berbagai Variasi pH, Suhu dan Waktu. Agrointek. Vol. 10, No. 1: 31-40.

Puspitowati, O. H., Ulfah, M., & Sasmito, E. (2012). Uji Aktivitas Imunostimulator Fraksi Air dari Ekstrak Etanol Kelopak Bunga Rosella (*Hibiscus Sabdariffa L.*) Terhadap Proliferasi Sel Limfosit Mencit Galur Swiss Secara In Vitro Beserta Identifikasi Kandungan Kimianya. *Jurnal Ilmu Farmasi dan Farmasi Klinik*, 9(2), 23-31.

Rahadian, R., Harun, N., & Efendi, R. (2017). Pemanfaatan Ekstrak Kelopak Bunga Rosella (*Hibiscus Sabdariffa L.*) Dan Rumput Laut (*Euchema Cottoni*) Terhadap Mutu Permen Jelly (Doctoral dissertation, Riau University). *JOM Faperta UR* Vol 4, Riau University.

- Reyes, H., Du, Y., Zhou, T., Xie, X., Shi, P. Y., Weiss, S. R., & Block, T. (2021). Glucosidase inhibitors suppress SARS-CoV-2 in tissue culture and may potentiate. *bioRxiv*.
- Rohadi and Wahjuningsih, S. B. 2019. The Effect of Thermal Treatment on Tea (*C. sinensis* Linn.) Extract, Type of White Tea on the Stability of Its Antioxidant Activity. *Jurnal Industri Hasil Perkebunan*, Vol. 14, No. 1, pp. 41–49.
- Roitt, I. M. & P. J. Delves. 2001. Essential Immunology. 10th edition. Blackwell Science Ltd. London, 17-25, 75-81.
- Rosidi, A., Khomsan, A., Setiawan, B., Riyadi, H., & Briawan, D. (2014). Potensi Temulawak (*Curcuma xanthorrhiza Roxb*) Sebagai Antioksidan. In Prosiding Seminar Nasional & Internasional.
- Sahala, A., & Soegihardjo, C. J. (2012). Uji Aktivitas Antioksidan Dan Penetapan Kadar Fenolat Total Fraksi Air Daun Ketapang (*Terminalia Catappa L.*) Dengan Metode Dpph (2, 2-diphenyl-1-picrylhydrazyl) Dan Metode Folin-ciocalteu. *Jurnal Farmasi Sains dan Komunitas (Journal of Pharmaceutical Sciences and Community)*, 9(2).
- Said, A. 2007. Khasiat dan Manfaat Temulawak. Penerbit Sinar Wadja Lestari, Jakarta. 61 hlm.
- Santiago, M., & Strobel, S. (2013). Chapter Twenty-Four-Thin Layer Chromatography. *Laboratory Methods in Enzymology: Cell, Lipid and Carbohydrate* (ed. Lorsch, JBT-M. in E.) vol, 533, 303-324.
- Sasmito, E., Sahid, M.N.A., dan Ikawati, M.(2020).Buku Petunjuk Praktikum Imunologi Farmasi, Fakultas Farmasi UGM.
- Selim KA, Khalil KE, Abdel-bary MS, Abdel Azeim NA. 2005. Extraction, encapsulation and utilization of red pigments from Roselle (*Hibiscus sabdariffa*) as natural food colorant. *Food science and Tech. Dept.*
- Setiawati, M. C. N., Ikawati, Z., & Nyoman, K. (2017). Effect of Curcuma xanthorrhiza Roxb. Extract on TNF a Concentration And Depression's Score in Patient With Systemic Lupus Erythematosus. *Indonesian Journal of Pharmacy/Majalah Farmasi Indonesia*, 28(3).

- Semsri, S. (2020). In-vitro studies of anti-EGFR tyrosine kinase activity of Thai nutraceutical plants. Iranian journal of pharmaceutical research: IJPR, 19(2), 199.
- Sidik. 2006, Gerakan Nasional Minum Temulawak. http://www.majalahfarmacia.comrubrikone_news/
- Susanty, S., & Bachmid, F. (2016). Perbandingan metode ekstraksi maserasi dan refluks terhadap kadar fenolik dari ekstrak tongkol jagung (*Zea mays L.*). Jurnal Konversi, 5(2), 87-92.
- Suzery, M., Lestari, S., & Cahyono, B. (2010). Penentuan total antosianin dari kelopak bunga Rosela (*Hibiscus sabdariffa L*) dengan metode maserasi dan sokshletasi. Jurnal sains dan Matematika, 18(1), 1-6.
- Suzery, M., Nudin, B., Bima, D. N., and Cahyono, B. 2020. Effects of Temperature and Heating Time on Degradation and Antioxidant Activity of Anthocyanin from Roselle Petals (*Hibiscus sabdariffa L.*). International Journal of Science, Technology & Management, Vol. 1, No. 4, pp. 288– 236.
- Tan, Y. X., Tan, T. H., Lee, M. J. R., Tham, P. Y., Gunalan, V., Druce, J., ... & Tan, Y. J. (2007). Induction of apoptosis by the severe acute respiratory syndrome coronavirus 7a protein is dependent on its interaction with the Bcl-XL protein. Journal of virology, 81(12), 6346-6355.
- Triyastuti, M. S., Kumoro, A. C., Djaeni, M. (2017). Physical properties evaluation of roselle extractegg white mixture under various drying temperatures. AIP Conference Proceedings, 1823.
- Trusheva B, Trunkova D, Bankova V. (2007). Different extraction methods of biologically active components from propolis: a preliminary study. Chem Cent J 13.
- Tseng, T. H., Kao, T. W., Chu, C. Y., Chou, F. P., Lin, W. L., & Wang, C. J. (2000). Induction of apoptosis by hibiscus protocatechuic acid in human leukemia cells via reduction of retinoblastoma (RB) phosphorylation and Bcl-2 expression. Biochemical Pharmacology, 60(3), 307-315.
- Ulfah, M., Nirmalasari, N., Yulianti, D., Sakti, R., Heni, O., & Sasmito, E. (2014). UJI AKTIVITAS IMUNOSTIMULATOR EKSTRAK ETANOL DAN FRAKSI-FRAKSI KELOPAK BUNGA

ROSELLA (Hibiscus sabdariffa L.) TERHADAP PROLIFERASI SEL LIMFOSIT MENCIT GALUR SWISS SECARA IN VITRO BESERTA IDENTIFIKASI KANDUNGAN KIMIANYA.
Prosiding SNST Fakultas Teknik, 1(1).

- Wahyuni, D.T. dan S.B. Widjanarko. 2015. Pengaruh jenis pelarut dan lama ekstraksi terhadap ekstrak karotenoid labu kuning dengan metode gelombang ultrasonik. *Jurnal Pangan dan Agroindustri*. 3(2):390-401.
- Wahyuni, P. W. T., & Herdiyanto, M. R. (2017). Metode Ekstraksi dan Pemisahan Optimum Untuk Isolasi Xantorizol dari Temulawak (*Curcuma xanthorrhiza*). *Jurnal Jamu Indonesia* 2(2): 43-50.
- Wiyono, R. (2011). Studi Pembuatan Serbuk Effervescent Temulawak (*Curcuma xanthorrhiza Roxb*) Kajian Suhu Pengering, Konsentrasi Dekstrin, Konsentrasi Asam Sitrat dan Na-Bikarbonat. *Teknologi Pangan: Media Informasi dan Komunikasi Ilmiah Teknologi Pertanian*, 1(1).
- Wulandari, W. (2013). Pengaruh Suhu Pemanasan dan Ukuran Mesh Dalam Ekstraksi Senyawa Antosianin Kelopak Bunga Rosella (*Hibiscus sabdariffa L.*). *Joglo*, 26(1).
- Yuliani, Y. (2021). **ROSELLA (Hibiscus sabdariffa Linn.): KANDUNGAN GIZI, MANFAAT UNTUK KESEHATAN DAN APLIKASINYA PADA PRODUK PANGAN**. Deepublish.
- Yunilas, E.M dan O. Sinaga. 2005. Pengaruh pemberian tepung temulawak (*Curcuma Xanthorrhiza Roxb*) dalam ransum terhadap kualitas karkas ayam broiler umur 6 minggu. *Jurnal Agribisnis Peternakan* 1(2): 62–66.
- Yustinianus, R. R., Wunas, J., Rifai, Y., & Ramli, N. (2020). Curcumin Content in Extract of some Rhizomes from Zingiberaceae Family. *Journal of Pharmaceutical and Medicinal Sciences*, 4(1).
- Zhang, C., Ji, J., Ji, M., & Fan, P. (2015). Acetylcholinesterase inhibitors and compounds promoting SIRT1 expression from *Curcuma xanthorrhiza*. *Phytochemistry Letters*, 12, 215-219.
- Zhao, X., Guo, F., Comunale, M. A., Mehta, A., Sehgal, M., Jain, P., & Guo, J. T. (2015). Inhibition of endoplasmic reticulum-resident glucosidases impairs severe acute respiratory syndrome

coronavirus and human coronavirus NL63 spike protein-mediated entry by altering the glycan processing of angiotensin I-converting enzyme 2. *Antimicrobial agents and chemotherapy*, 59(1), 206-216.

Zhen, J, Villani, TS, Guo, Y, Qi, Y, Chin, K, Hsiung Pan, M, Ho, CT, Simon, JE& Wu, Q 2016, Phytochemistry, antioxidant capacity, total phenolic content and anti-inflammatory activity of Hibiscus sabdariffa leaves, *Food Chemistry*, 190:673±680.

Zhou P., Yang X.L., Wang X.G., Hu B., Zhang L., Zhang W. (2020). A pneumonia outbreak associated with a new coronavirus of probable bat origin. *Nature*;579(7798):270–273.

