

DAFTAR PUSTAKA

Abhinand, C.S., Raju, R., Soumya, S.J., Arya, P.S., dan Sudhakaran, P.R., 2016. VEGF-A/VEGFR2 signaling network in endothelial cells relevant to angiogenesis. *Journal of Cell Communication and Signaling*, **10**: 347–354.

Adom, M.B., Taher, M., Mutalabisin, M.F., Amri, M.S., Abdul Kudos, M.B., Wan Sulaiman, M.W.A., dkk., 2017. Chemical constituents and medical benefits of *Plantago major*. *Biomedicine & Pharmacotherapy*, **96**: 348–360.

Ahluwalia, A. dan Tarnawski, A.S., 2012. Critical role of hypoxia sensor--HIF-1 α in VEGF gene activation. Implications for angiogenesis and tissue injury healing. *Current Medicinal Chemistry*, **19**: 90–97.

Ahmadian, R., Bahramsoltani, R., Marques, A.M., Rahimi, R., dan Farzaei, M.H., 2021. Medicinal Plants as Efficacious Agents for Diabetic Foot Ulcers: A Systematic Review of Clinical Studies. *Wounds: A Compendium of Clinical Research and Practice*, **33**: 207–218.

Akhtari, N., Ahmadi, M., Vaghe, Y., Asadian, E., Behzad, S., Vatanpour, H., dkk., 2023. Natural agents as wound-healing promoters. *Inflammopharmacology*, **32**: 1–25.

Anindyajati, null, Artarini, A.A., Riani, C., dan Retnoningrum, D.S., 2016. Plasmid Copy Number Determination by Quantitative Polymerase Chain Reaction. *Scientia Pharmaceutica*, **84**: 89–101.

Arya, M., Shergill, I.S., Williamson, M., Gommersall, L., Arya, N., dan Patel, H.R., 2005. Basic principles of real-time quantitative PCR. *Expert Review of Molecular Diagnostics*, **5**: 209–219.

Baluk, P., Hashizume, H., dan McDonald, D.M., 2005. Cellular abnormalities of blood vessels as targets in cancer. *Current Opinion in Genetics & Development*, **15**: 102–111.

Bao, P., Kodra, A., Tomic-Canic, M., Golinko, M.S., Ehrlich, H.P., dan Brem, H., 2009. The Role of Vascular Endothelial Growth Factor in Wound Healing. *The Journal of surgical research*, **153**: 347–358.

Barreto, R.S.S., Albuquerque-Júnior, R.L.C., Araújo, A.A.S., Almeida, J.R.G.S., Santos, M.R.V., Barreto, A.S., dkk., 2014. A Systematic Review of the Wound-Healing Effects of Monoterpenes and Iridoid Derivatives. *Molecules*, **19**: 846–862.

Beirami, A.D., Akhtari, N., Noroozi, R., Hatamabadi, D., Hasan, S.M.F., Ayatollahi, S.A., dkk., 2024. Bringing back *Galium aparine* L. from forgotten corners of traditional wound treatment procedures: an antimicrobial, antioxidant, and in-vitro wound healing assay along with HPTLC fingerprinting study. *BMC Complementary Medicine and Therapies*, **24**: 279.

Betsholtz, C., 2004. Insight into the physiological functions of PDGF through genetic studies in mice. *Cytokine & Growth Factor Reviews*, **15**: 215–228.

Cao, Y., Yu, M., Dong, G., Chen, B., dan Zhang, B., 2020. Digital PCR as an Emerging Tool for Monitoring of Microbial Biodegradation. *Molecules (Basel, Switzerland)*, **25**: 706.

Carmeliet, P., 2003. Angiogenesis in health and disease. *Nature Medicine*, **9**: 653–660.

Carmeliet, P. dan Jain, R.K., 2011. Molecular mechanisms and clinical applications of angiogenesis. *Nature*, **473**: 298–307.

Chiang, L.C., Chiang, W., Chang, M.Y., Ng, L.T., dan Lin, C.C., 2002. Antiviral activity of *Plantago major* extracts and related compounds in vitro. *Antiviral Research*, **55**: 53–62.

Chung, S.-Y., Chao, T.-C., dan Su, Y., 2021. The Stemness-High Human Colorectal Cancer Cells Promote Angiogenesis by Producing Higher Amounts of Angiogenic Cytokines via Activation of the Egfr/Akt/Nf- κ B Pathway. *International Journal of Molecular Sciences*, **22**: 1355.

Falkenberg, K.D., Rohlenova, K., Luo, Y., dan Carmeliet, P., 2019. The metabolic engine of endothelial cells. *Nature Metabolism*, **1**: 937–946.

Gariyban, L. dan Avashia, N., 2013. Research Techniques Made Simple: Polymerase Chain Reaction (PCR). *The Journal of investigative dermatology*, **133**: e6.

Ghanadian, M., Soltani, R., Homayouni, A., Khorvash, F., Jouabadi, S.M., dan Abdollahzadeh, M., 2022. The Effect of *Plantago major* Hydroalcoholic Extract on the Healing of Diabetic Foot and Pressure Ulcers: A Randomized Open-Label Controlled Clinical Trial. *The International Journal of Lower Extremity Wounds*, 15347346211070723.

Ghasemi, M., Turnbull, T., Sebastian, S., dan Kempson, I., 2021. The MTT Assay: Utility, Limitations, Pitfalls, and Interpretation in Bulk and Single-Cell Analysis. *International Journal of Molecular Sciences*, **22**: 12827.

Golebiewska, E.M. dan Poole, A.W., 2015. Platelet secretion: From haemostasis to wound healing and beyond. *Blood Reviews*, **29**: 153–162.

Guerra, A., Belinha, J., dan Jorge, R.N., 2018. Modelling skin wound healing angiogenesis: A review. *Journal of Theoretical Biology*, **459**: 1–17.

Hanahan, D. dan Weinberg, R.A., 2011. Hallmarks of cancer: the next generation. *Cell*, **144**: 646–674.

He, Y., Kam, H., Wu, X., Chen, Q., dan Lee, S.M.Y., 2023. Dual effect of aucubin on promoting VEGFR2 mediated angiogenesis and reducing RANKL-induced bone resorption. *Chinese Medicine*, **18**: 108.

Hertiani, Triana., Ikawati, Zullies., Murwanti, Retno., Damayanti, Ema., 2023, Laporan Penelitian RIIM Batch I Tahun 2023, Badan Riset Inovasi Nasional.

Hicklin, D.J. dan Ellis, L.M., 2005. Role of the vascular endothelial growth factor pathway in tumor growth and angiogenesis. *Journal of Clinical Oncology: Official Journal of the American Society of Clinical Oncology*, **23**: 1011–1027.

Hoang, T.P.N., Ghori, M.U., Ousey, K.J., dan Conway, B.R., 2022. 'Current and advanced therapies for chronic wound infection', *The Pharmaceutical Journal*. URL: <https://pharmaceutical-journal.com/article/ld/current-and-advanced-therapies-for-chronic-wound-infection> (diakses tanggal 16/7/2023).

Huang, Xu, Liang, P., Jiang, B., Zhang, P., Yu, W., Duan, M., dkk., 2020. Hyperbaric oxygen potentiates diabetic wound healing by promoting fibroblast cell proliferation and endothelial cell angiogenesis. *Life Sciences*, **259**: 118246.

Johnson, K.E. dan Wilgus, T.A., 2014. Vascular Endothelial Growth Factor and Angiogenesis in the Regulation of Cutaneous Wound Repair. *Advances in Wound Care*, **3**: 647–661.

Kaipainen, A., Korhonen, J., Mustonen, T., van Hinsbergh, V.W., Fang, G.H., Dumont, D., dkk., 1995. Expression of the fms-like tyrosine kinase 4 gene becomes restricted to lymphatic endothelium during development. *Proceedings of the National Academy of Sciences of the United States of America*, **92**: 3566–3570.

Karamysheva, A.F., 2008. Mechanisms of angiogenesis. *Biochemistry. Biokhimiia*, **73**: 751–762.

Kartini, K., Irawan, M.A., Setiawan, F., dan Jayani, N.I.E., 2023. Characteristics, Isolation Methods, and Biological Properties of Aucubin. *Molecules*, **28**: 4154.

Kartini K, K., Islamie, R., dan Handojo, C.S., 2018. Wound Healing Activity of Aucubin on Hyperglycemic Rat. *Journal of Young Pharmacists*, **10**: S136–S139.

Kartini, K., Wati, N., Gustav, R., Wahyuni, R., Anggada, Y.F., Hidayani, R., dkk., 2021. Wound healing effects of *Plantago major* extract and its chemical compounds in hyperglycemic rats. *Food Bioscience*, **41**: 100937.

Kartini, Piyaviriyakul, S., Siripong, P., dan Vallisuta, O., 2014. HPTLC simultaneous quantification of triterpene acids for quality control of *Plantago major* L. and evaluation of their cytotoxic and antioxidant activities. *Industrial Crops and Products*, **60**: 239–246.

Kartini, Piyaviriyakul, S., Thongpraditchote, S., Siripong, P., dan Vallisuta, O., 2017. Effects of *Plantago major* extracts and its chemical compounds on proliferation of cancer cells and cytokines production of lipopolysaccharide-activated THP-1 macrophages. *Pharmacognosy Magazine*, **13**: 393–399.

Kazlauskas, A., 2017. PDGFs and their receptors. *Gene*, **614**: 1–7.

Khafi, Muhamad., 2024, Pendekatan *Network Pharmacology*, Validasi Efikasi secara *In Vivo*, dan Analisis *Untargeted Metabolomic* Daun *Plantago major* L. dalam Penyembuhan Luka Diabetes, *Tesis*, M.Pharm.Sci, Fakultas Farmasi, Universitas Gadjah Mada, Yogyakarta

Keivani, M., Mehregan, I., dan Albach, D.C., 2021. Evaluating morphological diversity among *Plantago major* L. populations and influence of ecological variables. *Biologia*, **76**: 1127–1139.

Keshavarzi, A., Montaseri, H., Akrami, R., Moradi Sarvestani, H., Khosravi, F., Foolad, S., dkk., 2022. Therapeutic Efficacy of Great Plantain (*Plantago major* L.) in the Treatment of Second-Degree Burn Wounds: A Case-Control Study. *International Journal of Clinical Practice*, **2022**: 4923277.

Kleinman, H., 2010. In vitro angiogenesis: Endothelial cell tube formation on gelled basement membrane extract. *Nature protocols*, **5**: 628–35.

Kobeasy, I., Abdel-Fatah, M., El-Salam, S.M.A., dan Mohamed, Z.E.-O.M., 2011. Biochemical studies on *Plantago major* L. and *Cyamopsis tetragonoloba* L. *International Journal of Biodiversity and Conservation*, **3**: 83–91.

Koohsari, H., Ghaemi, E.A., Sheshpoli, M.S., Jahedi, M., dan Zahiri, M., 2015. The investigation of antibacterial activity of selected native plants from North of Iran. *Journal of Medicine and Life*, **8**: 38.

Kumar, K., Srivastav, S., dan Sharanagat, V.S., 2020. Ultrasound assisted extraction (UAE) of bioactive compounds from fruit and vegetable processing by-products: A review. *Ultrasonics Sonochemistry*, **70**: 105325.

Kumar, P., Kumar, S., Udupa, E.P., Kumar, U., Rao, P., dan Honnegowda, T., 2015. Role of angiogenesis and angiogenic factors in acute and chronic wound healing. *Plastic and Aesthetic Research*, **2**: 243.

Kut, K., Bartosz, G., Soszyński, M., dan Sadowska-Bartosz, I., 2022. Antioxidant properties of hispidulin. *Natural Product Research*, **36**: 6401–6404.

Landén, N.X., Li, D., dan Ståhle, M., 2016. Transition from inflammation to proliferation: a critical step during wound healing. *Cellular and Molecular Life Sciences*, **73**: 3861–3885.

Li, J., Li, R., Wu, X., Zheng, C., Shiu, P.H.-T., Rangsinth, P., dkk., 2022. An Update on the Potential Application of Herbal Medicine in Promoting Angiogenesis. *Frontiers in Pharmacology*, **13**: 928817.

Li, Y., Zhao, Y., Zhang, Y., Wang, M., dan Sun, W., 2009. X-ray crystal structure of iridoid glucoside aucubin and its aglycone. *Carbohydrate Research*, **344**: 2270–2273.

Liao, Q., Su, L., Pang, L., Li, Jiabin, Li, H., Li, Jingjing, dkk., 2023. Natural exosome-like nanoparticles derived from ancient medicinal insect *Periplaneta americana* L. as a novel diabetic wound healing accelerator. *Journal of Nanobiotechnology*, **21**: 169.

Lima, T. de P. de L. dan Passos, M.F., 2021. Skin wounds, the healing process, and hydrogel-based wound dressings: a short review. *Journal of Biomaterials Science. Polymer Edition*, **32**: 1910–1925.

Liu, Z.-L., Chen, H.-H., Zheng, L.-L., Sun, L.-P., dan Shi, L., 2023. Angiogenic signaling pathways and anti-angiogenic therapy for cancer. *Signal Transduction and Targeted Therapy*, **8**: 198.

Lyu, S., Mei, Q., Liu, H., Wang, B., Wang, J., Lambers, H., dkk., 2023. Genome assembly of the pioneer species *Plantago major* L. (Plantaginaceae) provides insight into its global distribution and adaptation to metal-contaminated soil. *DNA Research*, **30**: dsad013.

M. G. Visha dan Karunakaran, M., 2019. A review on wound healing. *International Journal of Clinicopathological Correlation*, **3**: 50–59.

MacKay, D. dan Miller, A.L., 2003. Nutritional support for wound healing. *Alternative Medicine Review: A Journal of Clinical Therapeutic*, **8**: 359–377.

Mahmood, M.M. dan Mahdi, A.K., 2022. Experimental study of the effect of *Plantago major* leaves extract on contaminated excisional wound healing in rabbits. *Iraqi Journal of Veterinary Sciences*, **36**: 31–39.

Mann, K.G., 2003. Factor VII-Activating Protease. *Circulation*, **107**: 654–655.

Marzuki, Ahmad., 2024, 'Penelusuran Mekanisme Anti-inflamasi Ekstrak *Plantago major* L. pada Sel Raw 264.7 Hiperglikemi Terinduksi Lipopolisakarida dan Analisis Profil Kimia Secara Kemometrik', Tesis, M.Pharm.Sci, Fakultas Farmasi, Universitas Gadjah Mada, Yogyakarta

Medina-Leyte, D.J., Domínguez-Pérez, M., Mercado, I., Villarreal-Molina, M.T., dan Jacobo-Albavera, L., 2020. Use of Human Umbilical Vein Endothelial Cells (HUVEC) as a Model to Study Cardiovascular Disease: A Review. *Applied Sciences*, **10**: 938.

Mello, J.C., Gonzalez, M.V.D., Moraes, V.W.R., Prieto, T., Nascimento, O.R., dan Rodrigues, T., 2015. Protective Effect of *Plantago major* Extract against t-BOOH-Induced Mitochondrial Oxidative Damage and Cytotoxicity. *Molecules*, **20**: 17747–17759.

Metcalf, A.D. dan Ferguson, M.W.J., 2008. Skin stem and progenitor cells: using regeneration as a tissue-engineering strategy. *Cellular and molecular life sciences: CMLS*, **65**: 24–32.

Murray, C. dan Martin, S. (Editor), 2009. *Angiogenesis Protocols: Second Edition*, Methods in Molecular Biology. Humana Press, Totowa, NJ.

Najafian, Y., Hamed, S.S., Farshchi, M.K., dan Feyzabadi, Z., 2018. *Plantago major* in Traditional Persian Medicine and modern phytotherapy: a narrative review. *Electronic Physician*, **10**: 6390–6399.

Nemudzhvadi, V. dan Masoko, P., 2014. In Vitro Assessment of Cytotoxicity, Antioxidant, and Anti-Inflammatory Activities of *Ricinus communis* (Euphorbiaceae) Leaf Extracts. *Evidence-Based Complementary and Alternative Medicine*, **2014**: 625961.

Nilsson, M. dan Heymach, J.V., 2006. Vascular Endothelial Growth Factor (VEGF) Pathway. *Journal of Thoracic Oncology*, **1**: 768–770.

Park, J., Shin, M.-S., Hwang, G., Yamabe, N., Yoo, J.-E., Kang, K., dkk., 2018. Beneficial Effects of Deoxyshikonin on Delayed Wound Healing in Diabetic Mice. *International Journal of Molecular Sciences*, **19**: 3660.

Park, K.S., 2020. An overview on anti-inflammatory activities of Aucubin. *International Journal of Herbal Medicine*, **8**: 45–48.

Penn, J.W., Grobbelaar, A.O., dan Rolfe, K.J., 2012. The role of the TGF- β family in wound healing, burns and scarring: a review. *International Journal of Burns and Trauma*, **2**: 18–28.

Pérez-Gutiérrez, L. dan Ferrara, N., 2023. Biology and therapeutic targeting of vascular endothelial growth factor A. *Nature Reviews Molecular Cell Biology*, **24**: 816–834.

Potente, M., Gerhardt, H., dan Carmeliet, P., 2011. Basic and therapeutic aspects of angiogenesis. *Cell*, **146**: 873–887.

Primadina, N., Basori, A., dan Perdanakusuma, D.S., 2019. Proses Penyembuhan Luka Ditinjau dari Aspek Mekanisme Seluler dan Molekuler. *Qanun Medika - Medical Journal Faculty of Medicine Muhammadiyah Surabaya*, **3**: 31.

PubChem, 2024. 'PubChem Compound Summary for CID 91458, Aucubin', *National Center for Biotechnology Information*. URL: <https://pubchem.ncbi.nlm.nih.gov/compound/91458> (diakses tanggal 13/8/2024).

Pugh, C.W. dan Ratcliffe, P.J., 2003. Regulation of angiogenesis by hypoxia: role of the HIF system. *Nature Medicine*, **9**: 677–684.

Rahardianti, R. dan Nur, E.M., 2017. Akurasi Metode Real Pcr untuk Analisa Ekspresi Gen PmVRP15. *Prosiding Pertemuan Teknis Teknisi Litkayasa Lingkup BBPBAP Jepara*, 1–166.

Rahman, M.T., Uddin, M.S., Sultana, R., Moue, A., dan Setu, M., 2013. Polymerase Chain Reaction (PCR): A Short Review. *Anwer Khan Modern Medical College Journal*, **4**: 30–36.

Reina, E., Al-Shibani, N., Allam, E., Gregson, K.S., Kowolik, M., dan Windsor, L.J., 2013. The effects of *Plantago major* on the activation of the neutrophil respiratory burst. *Journal of Traditional and Complementary Medicine*, **3**: 268–272.

Saamia, M.N., U.R. Efrianti, N. Azizah, E. Julio, L. Nastassya, V., 2019. Optimum temperature of the amplification of the fljB gene of *Salmonella typhimurium*,

dalam: *Empowering Science and Mathematics for Global Competitiveness*. CRC Press.

Sainson, R.C.A., Aoto, J., Nakatsu, M.N., Holderfield, M., Conn, E., Koller, E., dkk., 2005. Cell-autonomous notch signaling regulates endothelial cell branching and proliferation during vascular tubulogenesis. *FASEB journal: official publication of the Federation of American Societies for Experimental Biology*, **19**: 1027–1029.

Samuelsen, A.B., 2000. The traditional uses, chemical constituents and biological activities of *Plantago major* L. A review. *Journal of Ethnopharmacology*, **71**: 1–21.

Sang, Q.X.A., 1998. Complex role of matrix metalloproteinases in angiogenesis. *Cell Research*, **8**: 171–177.

Schmittgen, T.D. dan Livak, K.J., 2008. Analyzing real-time PCR data by the comparative CT method. *Nature Protocols*, **3**: 1101–1108.

Sertić, M., Crkvenčić, M., Mornar, A., Hazler Pilepić, K., Nigović, B., dan Maleš, Ž., 2015. Analysis of aucubin and catalpol content in different plant parts of four *Globularia* species. *Journal of Applied Botany and Food Quality*, **Vol 88**: p.209214.

Shibuya, M., 2011. Vascular Endothelial Growth Factor (VEGF) and Its Receptor (VEGFR) Signaling in Angiogenesis: A Crucial Target for Anti- and Pro-Angiogenic Therapies. *Genes & Cancer*, **2**: 1097–1105.

Stochmal, A., Oleszek, W., dan Kapusta, I., 2008. TLC of Triterpenes (Including Saponins), dalam: Waksmundzka-Hajnos, M., Sherma, J., dan Kowalska, T. (Editor), *Thin Layer Chromatography in Phytochemistry, Chromatographic Science Series*. CRC Press.

Svingen, T., Letting, H., Hadrup, N., Hass, U., dan Vinggaard, A.M., 2015. Selection of reference genes for quantitative RT-PCR (RT-qPCR) analysis of rat tissues under physiological and toxicological conditions. *PeerJ*, **3**: e855.

Tahergorabi, Z. dan Khazaei, M., 2012. A Review on Angiogenesis and Its Assays. *Iranian Journal of Basic Medical Sciences*, **15**: 1110–1126.

Taskova, R., Evstatieva, L., Handjieva, N., dan Popov, S., 2002. Iridoid Patterns of Genus *Plantago* L. and Their Systematic Significance. *Zeitschrift für Naturforschung C*, **57**: 42–50.

Unger, C., Lokmer, N., Lehmann, D., dan Axmann, I.M., 2019. Detection of phenol contamination in RNA samples and its impact on qRT-PCR results. *Analytical Biochemistry*, **571**: 49–52.

USDA, N., 2024. 'The PLANTS Database', *National Plant Data Team, Greensboro, NC USA*. URL: <https://plants.usda.gov/home/plantProfile?symbol=PLMA2> (diakses tanggal 3/8/2024).

Vandana, J., K, G.A., dan Mukerjee, A., 2017. Phytochemical Screening and Evaluation of Anti-Inflammatory Activity of Aerial Part Extracts of *Plantago major* L. *Asian Journal of Pharmaceutical and Clinical Research*, 307–311.

Veith, A.P., Henderson, K., Spencer, A., Sligar, A.D., dan Baker, A.B., 2019. Therapeutic strategies for enhancing angiogenesis in wound healing. *Advanced Drug Delivery Reviews*, **146**: 97–125.

Velnar, T., Bailey, T., dan Smrkolj, V., 2009. The Wound Healing Process: An Overview of the Cellular and Molecular Mechanisms. *Journal of International Medical Research*, **37**: 1528–1542.

Wang, D., Jie, Q., Liu, B., Li, Y., Dai, L., Luo, J., dkk., 2017. Saponin extract from *Panax notoginseng* promotes angiogenesis through AMPK- and eNOS-dependent pathways in HUVECs. *Molecular Medicine Reports*, **16**: 5211–5218.

Wei, X., Wang, J., Deng, Y.-Y., Shao, B.-H., Zhang, Z.-F., Wang, H.-H., dkk., 2023. Tubiechong patching promotes tibia fracture healing in rats by regulating angiogenesis through the VEGF/ERK1/2 signaling pathway. *Journal of Ethnopharmacology*, **301**: 115851.

Wijayakusuma, H.M.H., 1994. *Tanaman Berkhasiat Obat Di Indonesia*. Pustaka Kartini, Jakarta.

Wilkinson, H.N. dan Hardman, M.J., 2020. Wound healing: cellular mechanisms and pathological outcomes. *Open Biology*, **10**: 200223.

Zaidi, A. dan Green, L., 2019. Physiology of haemostasis. *Anaesthesia & Intensive Care Medicine*, **20**: 152–158.

Zakaria, Fazila, Mohamad Anuar, N.N., Nor Hisam, N.S., Tan, J.-K., Zakaria, Fazaine, Mohd Fauzi, S.M., dkk., 2023. An investigation of the in vitro wound healing potential of *Mitragyna speciosa* (Korth.) Havil leaf ultrasound-assisted methanol crude extract and fractions. *Biocatalysis and Agricultural Biotechnology*, **50**: 102707.

Zeng, X., Guo, F., dan Ouyang, D., 2020. A review of the pharmacology and toxicology of aucubin. *Fitoterapia*, **140**: 104443.

Zhang, K., Lu, J., Mori, T., Smith-Powell, L., Synold, T.W., Chen, S., dkk., 2011. Baicalin increases VEGF expression and angiogenesis by activating the $ERR\alpha$ / $PGC-1\alpha$ pathway. *Cardiovascular Research*, **89**: 426–435.

Zubair, M., Ekholm, A., Nybom, H., Renvert, S., Widen, C., dan Rumpunen, K., 2012. Effects of *Plantago major* L. leaf extracts on oral epithelial cells in a scratch assay. *Journal of Ethnopharmacology*, **141**: 825–830.

Zubair, M., Nybom, H., Lindholm, C., Brandner, J.M., dan Rumpunen, K., 2016. Promotion of wound healing by *Plantago major* L. leaf extracts – ex-vivo experiments confirm experiences from traditional medicine. *Natural Product Research*, **30**: 622–624.

Zulkefli, N., Che Zahari, C.N.M., Sayuti, N.H., Kamarudin, A.A., Saad, N., Hamezah, H.S., dkk., 2023. Flavonoids as Potential Wound-Healing Molecules: Emphasis on Pathways Perspective. *International Journal of Molecular Sciences*, **24**: 4607.