

DAFTAR PUSTAKA

1. Park HY, Yaar Mi. Pigmentation and melanocyte biology. In: Kang S, Amagai M, Bruckner AL, Enk AH, Morgalis DJ, McMichael AJ, et al., editors. *Fitzpatrick Dermatology in General Medicine*. 9th ed. 2019. p. 328–50.
2. Lee SY, Baek N, Nam TG. Natural, semisynthetic and synthetic tyrosinase inhibitors. *J Enzyme Inhib Med Chem*. 2016;31(1):1–13.
3. Zolghadri S, Bahrami A, Hassan Khan MT, Munoz-Munoz J, Garcia-Molina F, Garcia-Canovas F, et al. A comprehensive review on tyrosinase inhibitors. *J Enzyme Inhib Med Chem*. 2019;34(1):279–309.
4. Baumann L, Saghari S. Skin pigmentation and pigmentation disorder. In: Baumann L, Saghari S, Weisberg E, editors. *Cosmetic Dermatology and Practice*. second edi. New York: McGraw-Hill; 2009. p. 98–108.
5. Pillaiyar T, Manickam M, Namasivayam V. Skin whitening agents: medicinal chemistry perspective of tyrosinase inhibitors. *J Enzyme Inhib Med Chem*. 2017 Jan 18;32(1):403–25.
6. Miot HA, Penna GDO, Ramos MC, Lúcia M, Penna F, Schmidt SM, et al. Profile of dermatological consultations in Brazil. *An Bras Dermatol*. 2018;93:916–28.
7. Mir MM, Jalali S. Prevalence of Skin Diseases : A Community Based Survey. *Int J Adv Med Sci*. 2018;3(12):3–5.
8. Mohammad A, Amin SS, Arif T, Dorjay K, Raj D, Bansal R. Hyperpigmented Skin Conditions : A Study Of Pattern and Prevalence from A Tertiary care hospital of North India. *Int J Curr Adv Res*. 2017;6(4):3562–5.
9. Asditya A, Sukanto H, Staf D, Fungsional M, Kesehatan I, Kedokteran F, et al. Studi Retrospektif : Profil Pasien Melasma. *BIKKK*. 2017;29:220–8.
10. Salim yessy F, Yenny SW, Lestari S. Insiden Melasma Di Poliklinik Kulit dan Kelamin RSUP Dr. M. Djamil Padang Tahun 2012-2015. *JKA*. 2018;7:1–2.
11. Chang T. Natural Melanogenesis Inhibitors Acting Through the Down Regulation of Tyrosinase Activity. *Materials (Basel)*. 2012;5:1661–85.
12. D’Mello SAN, Finlay GJ, Baguley BC, Askarian-Amiri ME. Signaling pathways in melanogenesis. *Int J Mol Sci*. 2016;17(7):1–18.
13. Huang HC, Chang SJ, Wu CY, Ke HJ, Chang TM. [6] -Shogaol inhibits -MSH-induced melanogenesis through the acceleration of ERK and PI3K/Akt-mediated MITF degradation. *Biomed Res Int*. 2014;2014:4–10.
14. Sarkar R, Chugh S, Garg VK. Newer and upcoming therapies for melasma. *Indian J Dermatlogy Lepr*. 2012;78(4):417–28.
15. Sarkar R, Arora P, Garg KV. Cosmeceuticals for Hyperpigmentation : What is Available ? *J Cutan Aesthet Surg*. 2013;6(1):4–12.
16. Draelos ZD. The Art and Science of New Advances in Cosmeceuticals. *Clin Plast Surg*. 2011;38:397–407.
17. Charissa M, Djajadisastra J, Elya B. Uji Aktivitas Antioksidan dan Penghambatan Tirosinase serta Uji Manfaat Gel Ekstrak Kulit Batang Taya (*Nuclea subdita*) terhadap Kulit. *JKI*. 2017;6(2):98–107.
18. Kaur H, Nagpal M, Aggarwal G. *Journal of Drug Delivery and*

- Therapeutics Potential benefits of phytochemicals for treatment of hyperpigmentation. *J Drug Deliv Ther.* 2019;9(2):420–7.
19. Pillaiyar T, Namasivayam V, Manickam M, Jung SH. Inhibitors of Melanogenesis: An Updated Review. *J Med Chem.* 2018;61(17):7395–418.
 20. Ali A, Akhtar N, Khan MS. In vivo evaluation: the effects of a cream containing Acacia bark extract on skin melanin and erythema content. *Postep Dermatol Alergol.* 2012;29:369–72.
 21. Sato K, Toriyama M. Depigmenting Effect of Catechins. *Molecules.* 2009;14:4425–32.
 22. Ko RK, Kim GO, Hyun CG, Jung DS, Lee NH. Compounds with Tyrosinase Inhibition , Elastase Inhibition and DPPH Radical Scavenging Activities from the Branches of *Distylium racemosum* Sieb .et Zucc. *Phyther Res.* 2011;25:1451–6.
 23. Khan BA, Akhtar N, Hussain I, Abbas KA, Rasul A. Whitening efficacy of plant extracts including *Hippophae rhamnoides* and *Cassia fistula* extracts on the skin of Asian patients with melasma. *Postep Dermatol Alergol.* 2013;4:226–33.
 24. Musdja Y. Antioxidant Activity of Catechins Iisolate of *Uncaria Gambier roxb* in Male Rats. *Int J Heal Life Sci.* 2018;4:34–46.
 25. Hilmi HL, Rahayu D. Aktivitas Farmakologi Gambir (*Uncaria Gambier Roxb.*). *Farmaka.* 2011;16:134–41.
 26. Andasuryani, Purwanto YA, Budiastra IW, Syamsu K. Prediksi kandungan katekin gambir (*Uncaria gambier roxb*) dengan Spektroskopi NIR. *J Teknol Ind Pertan.* 2014;24:43–52.
 27. Amos. Kandungan katekin gambir sentra produksi di indonesia. *J Standarisasi.* 2010;12:149–55.
 28. Aditya M, Ariyanti PR. Manfaat Gambir (*Uncaria gambier Roxb*) sebagai Antioksidan Benefits of Gambir (*Uncaria gambier Roxb*) as Antioxidant. *Majority.* 2016;5:129–33.
 29. Anggraini T, Tai A, Yoshino T, Itani T. Antioxidative activity and catechin content of four kinds of *Uncaria gambier* extracts from West Sumatra , Indonesia. *African J Biochem Res.* 2011;5:33–8.
 30. Burger P, Landreau A, Azoulay S, Michel T, Fernandez X. Skin Whitening Cosmetics: Feedback and Challenges in the Development of Natural Skin Lighteners. *Cosmetics.* 2016;3(4):36.
 31. Khumairoh I, Puspitasari IM. *Kultur Sel.* *Farmaka.* 2016;14:98–110.
 32. Nakamura K, Yoshikawa N, Yamaguchi Y. Characterization of mouse melanoma cell lines by their mortal malignancy using an experimental metastatic model. *Life Sci.* 2002;70:791–8.
 33. Hindritiani R, Dhianawaty D, Sujatno M, Sutedja E. Penurunan Aktivitas Tirosinase dan Jumlah Melanin oleh Fraksi Etil Asetat Buah Malaka (*Phyllanthus emblica*) pada Mouse Melanoma B16 Cell-Line Reduction of Tyrosinase Activity and Melanin Amount by Ethyl Acetate Fraction from Malaka (*Phyllanthus emblica*. *MKB.* 2013;45(38):118–24.
 34. Villareal MO, Han J, Yamada P, Shigemori H, Isoda H. Hirseins inhibit melanogenesis by regulating the gene expressions of MITF and melanogenesis enzymes. *Exp Dermatol.* 2009;19:450–7.
 35. Kumar KJS, Yang J, Chu F, Chang S, Wang S. Lucidone , a Novel Melanin

- Inhibitor from the Fruit of *Lindera erythrocarpa* Makino. *Phyther Res.* 2010;1165:1158–65.
36. Xie S, Chen Z. Down-Regulation of Melanin Synthesis and Transfer by Paeonol and Its Mechanisms. *Am Chinese Med.* 2007;35:139–51.
 37. Bu J, Chen Z, Zhou W, Fu Y, Li L, Li C. Inhibition of MITF and Tyrosinase by Paeonol-Stimulated JNK / SAPK to Reduction of Phosphorylated CREB. *Am J Chin Med.* 2008;36(2):245–63.
 38. Lee Y, Kim H, Lee KJ, Jeon HW, Cui S, Lee YM, et al. Inhibitory effect of glyceollin isolated from soybean against melanogenesis in B16 melanoma cells. *MBM Rep.* 2010;1:461–7.
 39. Cho M, Ryu M, Jeong Y, Chung Y, Kim D, Cho H, et al. Cardamonin suppresses melanogenesis by inhibition of Wnt/b -catenin signaling. *Biochem Biophys Res Commun.* 2009;390(3):500–5.
 40. Molina FGA, Uñoz JLM, Arón R V, Ópez JNRO. A Review on Spectrophotometric Methods for Measuring the Monophenolase and Diphenolase Activities of Tyrosinase. *J Agric Food Chem.* 2007;55:9739–49.
 41. Carter M, Shieh J. Cell Culture Technique. In: *Guide to Research Techniques in Neuroscience.* 2nd ed. 2015. p. 295–310.
 42. Parveen N, Kamal Z, Ali A, Ali AS. Microarray as high throughput tool for tyrosinase gene expression analysis. *MOJ Proteomics Bioinform.* 2017;6:250–3.
 43. Battyani Z, Xerri L, Hassoun J, Bonerandi J -J, Grob J -J. Tyrosinase Gene Expression in Human Tissues. *Pigment Cell Res.* 1993;6(6):400–5.
 44. Barber RD, Harmer DW, Coleman RA, Clark BJ. GAPDH as a housekeeping gene: Analysis of GAPDH mRNA expression in a panel of 72 human tissues. *Physiol Genomics.* 2005;21(March 2005):389–95.
 45. de Assis LVM, Moraes MN, da Silveira Cruz-Machado S, Castrucci AML. The effect of white light on normal and malignant murine melanocytes: A link between opsins, clock genes, and melanogenesis. *Biochim Biophys Acta - Mol Cell Res [Internet].* 2016;1863(6):1119–33. Available from: <http://dx.doi.org/10.1016/j.bbamcr.2016.03.001>
 46. Isnawati A, Raini M, Sampurno OD, Mutiatikum D, Widowati L, Gitawati R. Karakterisasi Tiga Jenis Ekstrak Gambir Dari Sumatera Barat. *Bul Penelit Kesehat.* 2012;40:201–8.
 47. Rahmawati N, Bakhtiar A, Putra P. Isolasi Katekin dari Gambir (*Uncaria gambir* (Hunter). Roxb) untuk Sediaan Farmasi dan Kosmetik. *J Penelit Farm Indones.* 2012;1:6–10.
 48. *Kajian Mutu Gambir di Kabupaten Pesisir Selatan.* 2001.
 49. Nasution AH, Asmarantaka RW, Lukman M Baga. Efisiensi Pemasaran Gambir di Kabupaten Lima Puluh Kota, Sumatera Barat. *BILP.* 2015;221–39.
 50. *Badan Pusat Statistik.* 2014.
 51. Hurst WJ, Krake SH, Bergmeier SC, Payne MJ, Miller KB, Stuart DA. Impact of fermentation , drying , roasting and Dutch processing on flavan-3-ol stereochemistry in cacao beans and cocoa ingredients. *Chem Cent J.* 2011;5:1–8.
 52. Yeni Gu, Syamsu K, Mardliyanti E, Muchtar H. Penentuan Teknologi

Proses Pembuatan Gambir Murni dan Katekin Terstandar dari Gambir Asalan. *JLI*. 2017;7:1–10.

53. Donna D, Damanik P, Surbakti N, Hasibuan R. Ekstraksi Katekin dari Daun Gambir(*Uncaria gambir roxb*) dengan Metode Maserasi. *JTK USU*. 2014;3:10–4.
54. Sazwi NN, Nalina T, Haji Z, Rahim A. Antioxidant and cytoprotective activities of Piper betle , Areca catechu , Uncaria gambir and betel quid with and without calcium hydroxide. *Complement Altern Med*. 2013;13:1–12.
55. Kim DS, Park SH, Kwon SB, Li K, Youn SW, Park KC. Epigallocatechin-3-gallate and hinokitiol reduce melanin synthesis via decreased MITF production. *Arch Pharm Res*. 2004;27(3):334–9.
56. Ni Z, Mu Y, O. G. Treatment of melasma with Pycnogenol®. *Phyther Res*. 2002;16(6):567–71.
57. Muddathir AM, Yamauchi K, Batubara I, Mohieldin EAM, Mitsunaga T. South African Journal of Botany Anti-tyrosinase , total phenolic content and antioxidant activity of selected Sudanese medicinal plants. *South African J Bot*. 2017;109:9–15.
58. Kim YC, Choi SY, Park EY. Anti-melanogenic effects of black, green, and white tea extracts on immortalized melanocytes. *J Vet Sci*. 2015;16(2):135–43.
59. Zhang X, Li J, Li Y, Liu Z, Lin Y, Huang J. Anti melanogenic effect of epigallocatechin-3-gallate (EGCG), epicatechin -3-gallate (ECG) and gallic acid (GA) via down regulation of cAMP/CREB/MITF signaling pathway in B16F10 melanoma cells. *Fitoterapia*. 2020;1:104634.
60. Reygaert WC. Green Tea Catechins : Their Use in Treating and Preventing Infectious Diseases. *Biomed Res Int*. 2018;2018:1–9.
61. Anggraini T, Asben A. Research Article Mangampo : A Traditional Method from West Sumatra to Extract Gambir from *Uncaria gambir* Tuty Anggraini , Neswati and Alfi Asben. *PakiJ Nutr*. 2019;18:146–52.
62. Wynn SG, Fougere B. *Venerinary Herbal Medicine*. Elsevier; 2006. 265–300 p.
63. Tuntland T, Ethell B, Kosaka T, Blasco F, Zang RX, Jain M, et al. Implementation of pharmacokinetic and pharmacodynamic strategies in early research phases of drug discovery and development at Novartis Institute of Biomedical Research. *Exp Phar Drug Dis*. 2014;5(July):1–16.
64. Ayu D, Nlpi D. Perkembangan Teknologi Reverse Transcriptase-Polymerase Chain Reaction dalam Mengidentifikasi Genom Avian Influenza dan Newcastle Diseases. *Wartazoa*. 2014;24(1):16–29.
65. Hutami S. Masalah Pencoklatan pada Kultur Jaringan. *J AgroBiogen*. 2008;4(2):83.