DAFTAR PUSTAKA

1. Aldi Y, Rasyadi Y, Handayani D. Immunomodulatory Activity of Meniran Extracts (Phyllanthus niruri Linn.) on Broiler Chickens. J Sains Farm Klin. 2014;1(1):20–6.
2. Sudiono J. Sistem Kekebalan Tubuh Manusia. Jakarta: EGC; 2014.
3. Hasdianah., Prima, Dewi., Peristiowati. & SIS. Imunologi Diagnosis dan Teknik Biologi Molekuler. Yogyakarta: Nuha Medika; 2014.
4. Arifah AN, Nurkhasanah N. Efek Fraksi Etil Asetat Ekstrak Etanol Akar Pasak Bumi (Eurycoma longifolia, Jack) Terhadap Aktivitas Fagositosis Makrofag Secara In Vitro. Pharmaciana. 2014;4(1):9–14.
5. Syaify A. Pengaruh level HbA1C terhadap fungsi fagositosis neutrofil (PMN) pada penderita periodontitis diabetika. Kedokteran. 2012;19(2):93–7.
6. Subowo. Imunologi Edisi 3. Jakarta: CV Sagung Seto; 2014.
7. Radji M. Imunologi & Virologi edisi revisi. Jakarta: PT. ISFI Penerbitan; 2015.
8. Sukmayadi AE, Sumiwi SA, Barliana MI, Aryanti AD. The Immunomodulatory Activity of Ethanol Extract of Tempuyung Leaves (Sonchus arvensis Linn.). Indones J Pharm Sci Technol. 2014;1(2):65–72.
9. Puspitaningrum I, Kusmita L, Franyoto YD. Aktivitas Imunomodulator Fraksi Etil Asetat Daun Som Jawa (Talinum triangulare (Jacq.) Willd) Terhadap Respon Imun Spesifik. Sekol Tinggi Ilmu Farm. 2017;15(2):24–9.
10. Rowan AD, Buttle DJ, Barrett AJ. The cysteine proteinases of the pineapple plant. Biochem J. 1990;266(3):869–75.

11. Silaban I, Rahmanisa S. Pengaruh Enzim Bromelin Buah Nanas (Ananas comosusL .) terhadap Awal Kehamilan Effect of bromelin in Pineapple (Ananas comosus L .) on Early Pregnancy. Majority. 2016;5(4):80–5.

12. Pavan R, Jain S, Shraddha, Kumar A. Properties and Therapeutic Application of Bromelain: A Review. Biotechnol Res Int. 2012;2012:1–6.

13. Maurer HR. Bromelain: Biochemistry, pharmacology and medical use. Cell Mol Life Sci. 2001;58(9):1234–45.

14. Gautam SS, Mishra SK, Dash V, Goyal AK, Rath G. Comparative study of extraction, purification and estimation of bromelain from stem and fruit of pineapple plant. Thai J Pharm Sci. 2010;34(2):67–76.

15. Sultan J, Samata A, Gowa K. Isolasi dan Pengukuran Aktivitas Enzim Bromelin dari Ekstrak Kasar Bonggol Nanas (Ananas comosus) pada Variasi Suhu dan pH. Biog J Ilm Biol. 2014;2(2):119–25.

16. Nur, Surahman, Surarti, Rehalat R. Aktifitas enzim bromelin terhadap peningkatan protein tepung ampas kelapa. J Biol Sci Educ. 2017;6(1):84–93.

17. Lourenc CB. Evaluation of the enzymatic activity and stability of commercial bromelain incorporated in topical formulations. Int J Cosmet. 2016;1–6.

18. Azhar R, Ariyanto B. Penentuan Parameter Fisika Dan Bromelin Kasar Dari Batang Nanas (Ananas comosus Merr .). J Farm Higea. 2012;1–7.

19. Kumaunang M, Kamu V. Aktivitas Enzim Bromelin Dari Ekstrak Kulit Nenas (Anenas comosus). J Ilm Sains. 2011;15(1):198.

20. Wuryanti. Isolasi Dan Penentuan Aktivitas Spesifik Enzim Bromelin Dari Buah Nanas (Ananas comosus L .). J Kim Sains Apl. 2004;VII(3):78–82.

21. Khalid N, Suleria H, Ahmed I. Pineapple Juice. Handb Funct Beverages Hum Heal. 2016;489–500.

22. Ritonja A, Rowan AD, Buttle DJ, Rawlings ND, Turk V, Barrett AJ. Stem bromelain: Amino acid sequence and implications for weak binding of cystatin. FEBS Lett. 1989;247(2):419–24.

23. Sawano Y, Hatano KI, Miyakawa T, Tanokura M. Absolute side-chain structure at position 13 is required for the inhibitory activity of bromein. J Biol Chem. 2008;283(52):36338–43.

24. Manzoor Z, Nawaz A, Mukhtar H, Haq I, Nawaz A. Bromelain: Methods of Extraction, Purification and Therapeutic Applications Human and Animal Health. Brazilian Arch Biol Technol Biol Technol v. 2016;59:1–16.

25. Bhui K, Tyagi S, Prakash B, Shukla Y. Pineapple bromelain induces autophagy, facilitating apoptotic response in mammary carcinoma cells. BioFactors. 2010;36(6):474–82.

26. Bhui K, Prasad S, George J, Shukla Y. Bromelain inhibits COX-2 expression by blocking the activation of MAPK regulated NF-kappa B against skin tumor-initiation triggering mitochondrial death pathway. Cancer Lett. 2009;282(2):167–76.

27. Amini A, Masoumi-Moghaddam S, Ehteda A, Morris DL. Bromelain and N-acetylcysteine inhibit proliferation and survival of gastrointestinal cancer cells in vitro: Significance of combination therapy. J Exp Clin Cancer Res. 2014;33(1):1–15.

28. Juhasz B, Thirunavukkarasu M, Pant R, Zhan L, Penumathsa SV, Secor ER, et al. Bromelain induces cardioprotection against ischemia-reperfusion injury through Akt/FOXO pathway in rat myocardium. Am J Physiol - Hear Circ Physiol. 2008;294(3):1365–71.

29. Hery W. Protein Kedelai & Kecambah : Manfaatnya Bagi Kesehatan. Yogyakarta: Kanisius; 2010.

30. Davies LC, Rice CM, McVicar DW, Weiss JM. Diversity and environmental adaptation of phagocytic cell metabolism. J Leukoc Biol. 2019;105(1):37–48.

31. Philippe B, Boleti H, Grenet D, Stern M, Latgé JP, Latge JP. Phagocytosis and Intracellular Fate of Aspergillus fumigatus Conidia in Alveolar Macrophages. Infect Immun. 2003;71(2):891–903.

32. Baratawidjaja KG. Imunologi Dasar Edisi 11. Jakarta: Balai Penerbit FKUI; 2010.

33. Abbas, A.K., Lichtman, A.H., Pillai S. Imunologi Dasar Abbas: Fungsi dan Kelainan Sistem Imun, Edisi Kelima. Elsevier; 2016.

34. Goldsby RA, Kindt TJ, Osborne BA, Kuby J. Immunology fifth edition. In New York: W.H. Freeman and Company; 2003.

35. Sica A, Schioppa T, Mantovani A, Allavena P. Tumour-associated macrophages are a distinct M2 polarised population promoting tumour progression: Potential targets of anti-cancer therapy. Eur J Cancer. 2006;42(6):717–27.

36. Moon ML, McNeil LK, Freund GG. Macrophages make me sick: How macrophage activation states influence sickness behavior. Psychoneuroendocrinology. 2011;36(10):1431–40.

37. Mosser DM. The many faces of macrophage activation. J Leukoc Biol. 2003;73(2):209–12.

38. Sarjadi. Patologi Umum. Semarang: Badan Penerbit Universitas Diponegoro; 2001.

39. Bijanti R. Buku Ajar Patologi Klinik Veteriner. Departemen Kedokteran Dasar Veteriner; 2010.

40. Firani NK. Mengenali Sel-Sel Darah dan Kelainan Darah. Malang: UB Press; 2018.

41. Rodak BF, Carr JH. Clinical hematology atlas. Fourth edition. Elsevier; 2013.

42. Guyton, A.C., dan Hall J. Guyton dan Hall : Buku Ajar Fisiologi Kedokteran Edisi Revisi Berwarna Ke-12. Singapura: Elsevier Singapore; 2016.

43. Saxena R, Sharma A, Bharti M, Rathore M. Immunomodulator A New Horizon : An overview. J Pharm Res. 2012;5(4):2306–10.

44. Bascones-Martinez A, Mattila R, Gomez-Font R, Meurman JH. Immunomodulatory drugs: Oral and systemic adverse effects. Med Oral Patol Oral Cir Bucal. 2014;19(1).

45. Hakim L. Rempah & Herba Kebun-Pekarangan Rumah Masyarakat. Yogyakarta: Diandara Pustaka Indonesia; 2015.

46. Kusuma AK dan FR. Hidup sehat secara Alami Dalam: Meniran Penambah Daya Tahan Tubuh Alami. Jakarta: Agro Media Pustaka; 2004.

47. Akrom; Mustofa; Astuti I. Pengaruh pemmberian ekstrak etanol herba meniran (Phyllanthus niruri) terhadap aktivitas fagositosis makrofag mencit Swiss yang di infeksi Plasmodium berghei. Sains Kesehat. 2015;(18(3)).

48. RI B. Formularium ramuan etnomedisin obat asli Indonesia. Jakarta: Badan POM RI; 2013.

49. Wijaya JC, Yunianta Y. Pengaruh Penambahan Enzim Bromelin Terhadap Sifat Kimia dan Organoleptik Tempe Gembus (Kajian Konsentrasi dan Lama Inkubasi dengan Enzim). J Pangan dan Agroindustri. 2015;3(1):96–106.

50. Ishak MC. Pengaruh Proses Pengeringan dan Imobilisasi Terhadap Aktivitas dan Kestabilan Enzim Bromelain dari Buah Nenas (Ananas comosus (L) Merr). Makassar; 2012.

51. A L. Principles of Biochemistry. Biochem Educ. 1982;23(42):4321–4.

52. Dillasamola D, Aldi Y, Kolobinti M. The effect of coriander ethanol extract (Coriandrum sativum L.) against phagocytosis activity and capacity of the macrophage cells and the percentage of leukocyte cells in white male mice. Pharmacogn J. 2019;11(6):1290–8.

53. Aldi Y, Aria M, Erman L. Uji Efek Imunostimulasi Ekstrak Etanol Herba Ciplukan (Physalis angulata L.) Terhadap Aktivitas Dan Kapasitas Fagositosis Sel Makrofag Pada Mecit Putih Betina. Sci J Farm dan Kesehat. 2016 Oct 14;4(1):38.

54. Aldi, Yufri; Novelin, Frisky; Handayani D. Aktivitas Beberapa Subfraksi Herba Meniran (Phyllanthusniruri Linn.) terhadap Aktivitas dan Kapasitas Fagositosis Makrofag. Sci J Farm dan Kesehat. 2015;5(2087–5045):2.

55. Aldi Y, Amdani A, Bakhtiar A. Aktivitas Senyawa Skopoletin dari Buah Mengkudu (Morinda citrifolia, Linn.) Terhadap Respon Fisiologi Makrofag Mencit Putih Jantan. Sci J Farm dan Kesehat. 2016;6(1):25.

56. Aldi Y, Dewi ON, Uthia R. Uji Imunomodulator Dan Jumlah Sel Leukosit Dari Ekstrak Daun Kemangi (Ocimum basilicum L.) Pada Mencit Putih Jantan. Sci J Farm dan Kesehat. 2016;6(2):139.

57. Carpette. An Introduction to Practical Biochemistry. Salemba Medika; 2005. 100–101 p.

58. Siti Jubaidah, Henny Nurhasnawati HWA. Penetapan kadar protein tempe jagung (Zea mays L.) dengan kombinasi kedelai (Glycine max (L.) Merill) secara spektrofotometri sinar tampak. J Ilm Manuntung. 2016;2(1):111–9.

59. Herdyastuti N. Isolasi dan karakterisasi ekstrak kasar enzim bromelin dari batang nanas (Ananas comusus L. merr). J Biol Res. 2006;12(1):75–7.

60. Chaurasiya RS, Umesh Hebbar H. Extraction of bromelain from pineapple core and purification by RME and precipitation methods. Sep Purif Technol. 2013;111:90–7.

61. Misran E, Idris A, Mat Sarip SH, Ya'akob H. Properties of bromelain extract from different parts of the pineapple variety Morris. Biocatal Agric Biotechnol. 2019;18.

62. Almahdy. A. Teratologi Eksperimental. Padang: Universitas Andalas Press; 2012.

63. Aldi Y, Dillasamola D, Florina T, Friardi D. Test immunomodulatory effects of ethanol extract skin of purple sweet potato (Ipomoea batatas (L.) Lam) with carbon clearance method and the number of leukocytes. Res J Pharm Biol Chem Sci. 2016;7(5):178–86.

64. Rowe RC, Sheskey PJ, Quinn ME. Handbook of Pharmaceutical Excipients. 6th editio. London: Pharmaceutical Press; 2009.

65. Brooks, G.F., Butel, J.S. dan Morse SA. Mikrobiologi Kedokteran. (Buku 1). Penerjemah: Bagian Mikrobiologi fakultas Kedokteran Universitas Airlangga. Jakarta: Salemba Medika; 2005.

66. Chairul C. Phagocytosis Effectivity Test of Phenylbutenoid Compounds Isolated from Bangle (Zingiber cassumunar Roxb.) Rhizome. Biodiversitas, J Biol Divers. 2009;10(1):40–3.

67. Abbas AK AL and SP. Celluler and Moleular Immunology. 8th ed. Philadelphia: Elsevier Saunders; 2017. 1–57 p.

68. Engwerda CR, Andrew D, Murphy M, Mynott TL. Bromelain activates murine macrophages and natural killer cells in vitro. Cell Immunol. 2001;210(1):5–10.

69. Mahajan S, Chandra V, Dave S, Nanduri R, Gupta P. Stem bromelain-induced macrophage apoptosis and activation curtail mycobacterium tuberculosis persistence. J Infect Dis. 2012;206(3):366–76.

70. Permatasari, Nungki Dwi ; Probosari E. Pengaruh Pemberian Sari Batang Nanas (Ananas Comosus) Terhadap Total Leukosit Tikus Wistar Yang Diberi Paparan Asap Rokok. J Nutr Coll. 2015;4(3):264–70.

71. R G. Penuntun Laboratorium Klinik. Jakarta: Dian Rakyat; 2010.

72. Dillasamola D, Aldi Y, Fakhri M, Diliarosta S, Biomechy Oktomalio P, Noverial. Immunomodulatory effect test from moringa leaf extract (Moringa oleifera l.) with carbon clearance method in male white mice. Asian J Pharm Clin Res. 2018;11(9):241–5.

73. Aldi Y, Dillasamola D, Yanti GR. Immunomodulator activity of ethanol extract of tapak liman leaves (Elephantopus scaber Linn.). Pharmacogn J. 2019;11(6):1419–27.

74. Aldi Y, Megaraswita, Dillasamola D. Effect of Elephantopus scaber linn. Leaf extract on mouse immune system. Trop J Pharm Res. 2019;18(10):2045–50.

75. Azizah M, Wiraningsih W, Sari ER. Efek Imunomodulator Ekstrak Etanol Kulit Buah Nanas (Ananas comosus L.Merr) terhadap Mencit Putih Jantan dengan Metode Bersihan Karbon (Carbon Clearance). Indones J Appl Sci. 2017;7(2):2–5.