

DAFTAR PUSTAKA

- Ajizah. A. (2004). Sensitivitas *Salmonella Typhinurium* Terhadap Ekstrak Daun *Psidium Guanava L. Bioscientiae*. 1(1):8-31.
- Akter, K. N., Karmakar, P., Das, A., Anonna, S. N., Shoma, S. A., Sattar, M. M. (2014). Evaluation of antibacterial and anthelmintic activities with total phenolic contents of *Piper betel* leaves. *Avicenna J Phytomed*; 4(5): 320-329.
- Alcamo. E., Mizgerd. J. P., Horwitz. B.H., Bronson. R., Beg. A.A., Scott. M., Doerschuk. C.M., Hynes. R.O., Baltimore. D. (2001). Targeted Mutation of TNF Receptor I Rescues the RelA-deficient Mouse and Revelas a Critical Role for NF-kappa B in Leukocyte Recruitment. *J Immunol*. 167:1592-1600.
- Ali, I., Khan, F.G., Suri, K.A., Gupta, B. D., Satti, N. K., Dutt, P., Afrin, F., Qazi, G. N., Khan, I. A. (2010). In vitro Antifungal Activity of Hydroxychavicol Isolated from *Piper betle L. Annals of Clinical Microbiology and Antimicrobials*, 9:7
- American Thoracic Society (ATS). (2005). Guidelines for The Management of Adults with Hospital-acquired, Ventilator-associated, and Healthcare-associated Pneumonia. *American Journal Respir Crit Care Med*, Vol 171, pp 388-416
- Amundsen, E. K., Urdal, P., Hagve, T., Holthe, M. R., Henriksson, C. E. (2012). Absolute Neutrophil Counts from Automated Hematology Instruments are Accurate and Precise Even at Very Low Levels. *American Journal Clin Pathol*, 137:862-869
- Arthur, J.C., Lich, J.D., Wilson. J.E., McElvania-TeKippe. E., Allen. I.C. (2013). Characterization of NLRP12 during the In Vivo Host Immune Response to *Klebsiella pneumoniae* and *Mycobacterium tuberculosis*. *PLoS ONE* 8(4).
- Bagliolinim. M., Dewaldm. B., Moser. B. (1994). Interleukin-8 and Related Chemotactic Cytokines-CXC and CC chemokines. *Adv Immunol*. 55:97-179.
- Bajpai. R.N. (1989). *Histologi Dasar Edisi 4*. Alih Bahasa Jan Tambajong. “Human Histology”. Jakarta: Binarupa Aksara.

- Baldy. C. M. (2006). *Gangguan Sel Darah Putih dan Sel Plasma. Paatofisiologi Konsep Klinis Proses-Proses Penyakit* (edisi 6). Jakarta: EGC.
- Bangash, F. A., Hashmi, A. N., Mahboob A., Zahid, M., Hamid, B., Muhammad, S.A., Shah, Z.U., Afzaal, H. (2012). In-Vitro Antibacterial Activity of *Piper Betel* Leaf Extracts. *Journal of Applied Pharmacy* (ISSN 19204159) 03(04): 639-646
- Bevelander. G. (1979). *Dasar-dasar Histologi Edisi 8*. Alih Bahasa Wisnu Gunaarso. "Essentials of Histology". Jakarta: Erlangga.
- Brown, M., Wittwer, C. (2000). Flow Cytometry: Principles and Clinical Application in Hematology. *Clinical Chemistry*. 46(8), 1221-1229.
- Caburian, A. B., & Osi, M. O. (2010). Characterization and evaluation of antimicrobial Activity of the essential oil from the leaves of *Piper betle* L.E-International Scientific Research Journal. Vol. 2.
- Campos, MA., Vargas, M.A., Requeiro, V., llompart, C.M., Alberti, S., Bengoechea J.A. (2004). Capsule Polysaccharide Mediates Bacterial Resistance to Antimicrobial Peptides. *Infect. Immun.* 72(12), 7107-7114.
- Center for Drug Evaluation and Research, Center for Biologics Evaluation and Research (2002). *Estimating the Safe Starting Dose in Clinical Trials for Therapeutics in Adult Healthy Volunteers*, U.S. Food and Drug Administration, Rockville, Maryland, USA.
- Chakraborty, D., Shah, B. (2011). Antimicrobial, Anti-oxidative, and Anti-hemolytic Activity of *Piper betel* Leaf Extracts. *International Journal of Pharmacy and Pharmaceutical Sciences*, 3(3) 192-199.
- Chang, X. Y., Tsai, S.F., Wu. T.S. (2008). Contribution of Fucosecontaning Capsules in *Klebsiella pneumoniae* to Bacterial Virulence in Mice. *Exp. Biol. Med. (Maywood)* 233(1), 64-70.
- Chibber, S., kaur, S., & Kumar, S. (2008). Therapeutic potential of bacteriophage in treating *Klebsiella pneumoniae* B5055-mediated lobar pneumonia in mice. *Journal of Medical Microbiology*, 57,1508-1513.
- Cortes. G., Borrel, N., De Astorza, B., Gomez, c., Sauleda. J., Alberti. S. (2002). Molecular Analysis of The Contribution of The Capsular polysaccharide and The Lipopolysaccharide O Side Chain to The Virulence of *Klebsiella pneumoniae* in A Murine Model of Pneumonia. *Infect. Immune.* 70(50), 2583-2590.

- Cowan. M. M. (1999). Plant Products as Antimicrobial Agents. *Clin Microbiol Rev.* 12(4):56-82.
- Craig. A., Mai. J., Cai. S., Jeyaseelan. S. (2009). Neutrophil Recruitment to The Lungs During Bacterial Pneumonia. *Infection and Immunity.* 77:568-575.
- Dwivedi, V., & Tripathi, S. (2014). Review Study on Potential Activity of *Piper Betle*. *Journal of Pharmacognosy and Phytochemistry*, 3(4):93-98.
- Evrard, B., Balestrino, D., Dosgilbert, A. et al.(2010). Roles of Capsule and Lypopolysaccharide O Antigen in Interactions of Human Monocyte-Derived Dendritic Cells and *Klebsiella pneumoniae*. *Infect. Immun.* 78(1). 210-219.
- Fauler. B., Brinkmann. V., Reichard. U., Goosmann. C., Uhlemann. Y., Weiss. D.S. et al. (2004). Neutrophils Extracellular Traps Kill Bacteria. *Science.* 303: 1532-1535.
- Foo, L. W., Salleh, E., Mamat, S. N. H. (2015). Extraction and Qualitative Analysis of *Piper betle* Leaves for Antimicrobial Activities. *International Journal of Engineering Technology Science and Research* (ISSN 2394-3386)Vol. 2
- Fox. R. B. (1984). Prevention of Granulocyte-mediated oxidant Lung Injury in Rats by a hydroxyl Radical Scavenger, Dimethylthiourea. *J Clin Invest.* 74(4): 1456-1464.
- Gandasoebrata, R. (2007). *Penuntun Laboratorium Klinik*. Jakarta: Dian Rakyat.
- Greenberger. M.J., Strieter. R.M., Kunkel. L., Danforth. J.M., Laichalk. L.L., McGillicuddy, D.C., Standiford. T.J. (1996). Neutralization of Macrophage Inflammatory Protein-2 Attenuates Neutrophil Recruitment and Bacterial Clearance in Murine *Klebsiella pneumoniae*. *J Infect Dis.* 173:159-165.
- Guha, P. (2006). Betel Leaf : The Neglected Green Gold of India. *J. Hum. Ecol.*, 19(2):87-93.
- Guimaraes-Costa. A. B., Souza-Vieira. T.S., Palette-Silva.R., Freitas-Mesquita. A.L., Meyes-Fernandes. J.R., Saraiva. E.M. (2014). 3'-Nucleotidase/Nuclease Activity Allows *Leishmania* parasites to Escape Killing by Neutrophils Extracellular Traps. *Infect Immu.* 82:1732-1740.
- Hoffmann. A., D. Baltimore. (2006). Circuitry of Nuclear Factor KappaB Signaling. *Immunol Rev.* 210:171-186.

- Hsu, C.R., Lin, T.L., Hsieh, P.F., Wang, J.T. (2013). Isolation of a Bacteriophage Specific for a New capsular type of *KLEBSIELLA PNEUMONIAEA* and Characterization of Its Polysaccharide depolymerase. *PLoS ONE* 8(8), 170092. <http://www.who.int/mediacentre/factsheets/fs331/en/>
- Indraswari, A. (2008). *Optimasi Pembuatan Ekstrak Daun Dewan Daru (Eugenia Uniflora L.) Menggunakan Metode Maserasi dengan Parameter Kadar Total Senyawa Fenolik dan Flavonoid*. Surakarta: Tugas Akhir Teknik Kimia Universitas Muhammadiyah Surakarta.
- Irving, W., Ala'Aldeen, D., Boswell, T. (Eds). (2006). *Medical Microbiology*. New York: Taylor & Francis Group.
- IVAC. (2015). *Pneumonia and Diarrhea, Progress Report*. Dipetik Maret 21, 2016, dari International Vaccine Access Center, John Hopkins Bloomberg School of Public Health: <http://www.jhsph.edu/research/centers-and-institutes/ivac/resources/IVAC-2015-Pneumonia-Diarrhea-Progress-Report.pdf>
- IVAC. (2015). *What is happening at IVAC for World Pneumonia Day*. Dipetik Maret 21, 2016, dari International Vaccine Access Center, John Hopkins Bloomberg School of Public Health: <http://www.jhsph.edu/research/centers-andinstitutes/ivac/IVACBlog/what-is-happening-at-ivac-for-world-pneumonia-day>.
- Jagnow, J. Clegg, S. (2003). *Klebsiella pneumoniae* MrkD-mediated biofilm formation on extracellular matrix and collagen coated surfaces. *Microbiology* 149(Pt 9), 2397-2405.
- Jeyaseelan. S. Mai. J., Craig. A., Cai. S., (2009). Neutrophil Recruitment to The Lungs During Bacterial Pneumonia. *Infection and Imunity*. 77:568-575.
- Junquiera. L., Carneiro. J. (2003). *Basic Histology: Text and Atlas*, 11th ed. McGraw-Hill, New York.
- Kabra, S. K., Lodha, R., Pandey, R. M. (2010). Antibiotics for Community-acquired Pneumonia in Children (Review). *The Cochrane Collaboration, John Wiley & Sons, Ltd.*
- Katz. M., Basu. S., Hodgson. G., Dunn. A.R. (2002). Evaluaton of Role of G-CSF in The Production, Survival, and Release of Neutrophils from Bone Marrow Into Circulation. *Blood*. 100(3):854-61.

- Kaveti, B., Tan, L., Sarnnia, Kuan, T. S., Baig, M. (2011). Antibacterial Activity of *Piper betel* Leaves. *International Journal of Pharmacy Teaching & Practices 2011, Vol. 2(3)*, 129-132. 129
- Kolaparth. L.K., Sanivarapu. S., Swarna. C., Devulapalli. N.S. (2014). Neutrophil Extracellular Traps: Their Role in Periodontal Disease. *J. Indian Soc. Periodont.* 18: 693-697.
- Lacy. P., Sheshachalam. A., Srivastava. N., Mitchell. T., Eitzen. G. (2014). Granula Protein Processing and Regulated Secretion in Neutrophils. *Front Immunol* 2014. 5:448.
- Li, B., Zhao, Y., Liu, C., Chen, Z., Zhou, D. (2014) Molecular Pathogenesis of *Klebsiella pneumoniae*. *Future Microbiol*, 9(9), 1071-1081.
- Litbangkes. (2013). *Riset Kesehatan Dasar 2013*. Jakarta: Badan Penelitian Dan Pengembangan Kesehatan Kementerian Kesehatan RI.
- Llobet, E., Tomas, J.M., Bengoechea J.A. (2008). Capsule Polysaccharide is a Bacterial Decoy for Antimicrobial Peptides. *Microbiology* 154 (Pt 12), 3877-3886.
- Lukacs. N.W., Hogaboam. C., Campbell. E., Kunkel. S.L. (1999). Chemokines: Function, Regulation and alteration of Inflammatory Responses. *Chem. Immunol.* 72:102-120.
- Mai. J., Craig. A., Cai. S., Jeyaseelan. S. (2009). Neutrophil Recruitment to The Lungs During Bacterial Pneumonia. *Infection and Imunity*. 77:568-575.
- Mehrad, B., Standiford, T. J. (1999). Use of Animal Models in the Study of Inflammatory Mediators of Pneumonia. *ILAR Journal* 40(4)
- Mehrad. B., Strieter. R.M., Standiford. T.J. (1999). Role of TNF-alpha in Pulmonary Host Defense in Murine Invasive Aspergillosis. *J Immunol.* 162(3):1633-40.
- Mizgerd. J.P., Lupa. M.M., Spieker. M.S. (2004). NF-kappaB p50 Facilitates Neutrophil Accumulation During LPS-induced Pulmonary Inflammation. *BMC Immunol.* 5:10.
- Moser. B., Baggiolinim. M., Dewaldm. B., (1994). Interleukin-8 and Related Chemmotactic Cytokines-CXC and CC chemokines. *Adv Immunol.* 55:97-179.
- Mubeen, M., Periyayagam, K., & Basha, S. S. (2014) Anatomical Investigation on the leaves of *Piper betle* (L) var. Sirugamani 1(SGM1) links an

- Ethnomedical Important. *International Journal of PharmTech Research.*6(1), pp 244-251.
- Munoz-Price, L.S., Poirel, L., Bonomo, R.A, et al. (2013). Clinical Epidemiology of The Global Expansion of *Klebsiella pneumoniae* carbapenemases. *Lancet Infect. Dis.* 13(9), 785-796.
- Munoz-Price, L.S., Poirel, L., Bonomo, R.A.(2013). Clinical Epidemiology of The Global Expansion of *Klebsiella pneumoniae* carbapenemases. *Lancet Infect. Dis.* 13(9), 785-796.
- Nalina, T., & Rahim, Z.H.A. (2007). The Crude Aqueous Extract of *Piper betle* L. and its Antibacterial Effect Towards *Streptococcus mutans*.*American Journal of Biotechnology and Biochemistry* 3 (1): 10-15.
- Niemi, A. A., Foster, S. L., Hayney, M. S. (2015). Recommendation for Conjugate Pneumococcal and Pneumococcal Plysaccharide Vaccines in Adults Older Than 65 years. *Journal of The American Pharmacists Association*.
- Notoatmojo, S. (2005). *Metodologi Penelitian Kesehatan. Cetakan Ketiga*. Jakarta: Rineka Pustaka.
- Pahl. H.L. (1999). Activators and Target Genes of Rel/NF-kappaB Transcription Factors. *Oncogenes*. 18:6853-6866.
- Pan, Y. J., Lin, T. L., Chen., Y.H. et al.,(2013). Capsular Types of *KLEBSIELLA PNEUMONIAEA* Revisited by Wzc Sequencing. *PLoS ONE* (912), e80670.
- Parwata. O. A., Dewi. F S. (2008). Isolasi dan Uji Aktivitas Antibakteri Minyak Atsiri dari Rimpang Legkuas (*Alpinia galangal* L.). *Jurnal Kimia Jurusan Kimia FMIPA Universitas Udayana, Bukit Jimbaran*. 100-104.
- Periyayagam, K., Mubeen, M., & Basha, S. S. (2014) Anatomical Investigation on the leaves of *Piper betle* (L) var. Sirugamani 1(SGM1) links an Ethnomedical Important. *International Journal of PharmTech Research.*6(1), pp 244-251.
- Peto, L., Nadjm, B., Horby, P., Ngan, T.T.D., Doorn, R. V., Kinh, N. V., Wertheim, H.F. L. (2014). The bacterial aetiology of adult community-acquired pneumonia in Asia: a systematic review. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, 108: 326 – 337.
- Price, S. A. (2006). *Patofisiologi Konsep Klinis Proses-Proses Penyakit*. Jakarta: EGC.

- Price. S.A., Wilson. L.M. (2006). *Patofisiologi: Konsep Klinis Proses-proses Penyakit, Edisi 6, volume 1.* Jakarta: EGC.
- Rahim, Z. H. A., Thurairajah, N. (2010). Scanning Electron Microscopic Study of *Piper betle L.* leaves extract effect against *S.mutans* ATCC 25175. *Journal Appl Oral Sci.* 2011;19(2):137-146.
- Rahn, A., Drummesmith, J., Whitfield, C. (1999). Conserved organizations in the CPS Gene Clusters for Expression of *Escherichia coli* group 1 K antigens: Relationship to The Colanic Acid Biosynthesis locus and the CPS Genes from *Klebsiella pneumoniae*. *J. Bacteriol.* 181(7), 2307-2313.
- Reagan-Shaw. S., Nihal. M., Ahmad. N. (2008). Dose Translation from Animal to Human Studies Revisited. *FASEB J.* 22(3):659-61.
- Richard, M. J., Edward, J. R., Culver, D. H., Gaynes, R.P (1999). Nosocomial Infections in Medical ICUs in The United States: National Nosocomial Infections Surveillance System. *Crit Care Med* 1999; 27:887-892.
- Robinson. C. (1991). Targeting of Proteins to Chloroplast nad Mitocondria in Plant Biotechnology, Vol. 1(Grierson, D., ed), Blackie, Gasgow. 179-198.
- Roques, C., Frayret, M.N., Luc. J., Michel. G., Rouquet. R.M., Leophonte. P., Dutau. G. (1992). Immunostimulant Effects on Granulocyte Function During an Acute Respiratory Infection. *Europe PMC.* 77:183-187.
- Roques. C., Frayret. M.N., Luc. J., Michel. G., Rouquet. R.M., Leophonte. P., Dutau. G. (1991). Immunostimulant Effects on Granulocyte Function During an Acute Respiratory Infection. *Europe PMC.* 77:183-187.
- Sahly, H., Podschun, R., Oelschlaeger. T.A., et.al(2000). Capsule Impedes Adhesion to and Invasion of Epithelial Cells by *Klebsiella pneumoniae*. *Infect. Immun.* 68(12), 6744-6749.
- Saija, A., Scalese. M., Lanza. M., Marzullo. D., Bonina. F., Castelli. F. (1995). Flavonoid as Antioxidant Agents: Importance of Their Interaction with Biomembranes. *Free Radic Biol Med.* 19(4):481-6.
- Sarathbabu. R., Ramani. T. V., Bhaskara rao. K., Panda. S. (2012). Antibiotic susceptibility pattern of *Klebsiella pneumoniae* isolated from sputum, urine and pus samples. *IOSR Journal of Pharmacy ad Biological Sciences (IOSRJPBS) ISSN : 2278 – 3008* 1(2),04-09.

- Sheshachalam. A., Srivastava. N., Mitchell. T., Lacy. P., Eitzen. G. (2014). Granula Protein Processing and Regulated Secretion in Neutrophils. *Front Immunol* 2014. 5:448.
- Shon, A.S., Bajwa R. P., Russo, T.A (2013). Hypervirulent (Hypermucoviscous) *Klebsiella pneumoniae*: a new and dangerous breed. *Virulence* 4(2), 107 – 118.
- Skrajnar, S., Lasnik, M. A., Zavec, A. B. (2009). A Flow Cytometric Method for Determination of the Blood Neutrophil Fraction in Rats. *Journal of the American Association for Laboratory Animal Science*, 48(2), 152-156.
- Skrajnar. S., Anzur. L.M., Bedina. Z.A. (2009). A Flow Cytometry Method for Determination of the Blood Neutrophil Fraction in Rats. *J Am Assoc lab Anim Sci*. 48: 152-156.
- Spandana. N., Jesonbabu. J., Lakshmi. A. (2012). *In Vitro* Antimicrobial Potentialities of Chloroform Extracts of Ethanomedicinal Plant Against Clinically Isolated Human Pathogens. *International Journal of Pharmacy and harmaceutical Sciences* ISSN-0975-149, 4(3)
- Subroto. A. (2006). *VCO Dosis Tepat Taklukan Penyakit*. Jakarta: Penebar Swadaya.
- UNICEF. (2015). *Committing to Child Survival: A Promise Renewed. Progress Report 2015*. Dipetik Maret 21, 2016, dari UNICEF: http://www.unicef.org/publications/files/APR_2015_9_Sep_15.pdf
- UNICEF. (2016). *Pneumonia kills half a million children under five in sub-Saharan Africa, UNICEF says as it launches campaign to curb the disease.* Dipetik Maret 21, 2016, dari UNICEF:http://www.unicef.org/media/media_89995.html
- Urbanek. K., Kola. M., Loveckova. Y., Strojil. J., Santava. L. (2007). Influence of Third-Generation Cephalosporin Utilization on The Occurrence Of ESBL-Positive *Klebsiella Pneumoniae* Strains. *Journal of Clinical Pharmacy and Therapeutics* 32, 403 – 408.
- Wang J.T., Pan, y.j., Lin, T.L., Hsu, C. R., (2011). Use of A *Distyosteum* Model for Isolation of Genetic Loci Associated with Phagocytosis and Virulence in *Klebsiella pneumoniae*. *Infect. Immune*. 79(3), 997-1006.
- Watson. J.V. (1999). The Early Fluidic and Optical Physics of Cytometry. *Cytometry*. 38, 1-14.

- Whitfield, C. (2006) Biosynthesis and Assembly of Capsular Polysaccharides in *Escherichia coli*. *Annu. Rev. Biochem.* 75, 39-68.
- WHO. (2015). *Pneumonia*. Dipetik Maret 21, 2016, dari World Health Organization: <http://www.who.int/mediacentre/factsheets/fs331/en/>
- Wiladatika. M. M. (2013). *Aktivitas Antibakteri Kombinasi Ekstrak Etanol daun Sirih Merah (Piper crocatum Ruiz and Pav) dan Siprofloksasin Terhadap Staphylococcus Aureus, Pseudomonas aeruginosa, dan Klebsiella pneumoniae Beserta Bioautografinya*. Skripsi thesis, Universitas Muhammadiyah Surakarta.
- Wismarini. H., Hanudin. E., Hertiani. T., Sunarminto. B.H. (2012). Effect of Shading, Nitrogen and Magnesium Fertilizer on Phyllanthin and Total flavonoid Yield of *Phyllanthus niruri* in Indonesia soil. *Journal of Medicinal Plants Research*. 6(30):4586-4592.
- Wu, J.H., Wu, A.M., Tsai., C.G., Chang. X.Y., Tsai S.F., Wu. T.S. Contribution of Fucosecontaining Capsules in *Klebsiella pneumoniae* to Bacterial Virulence in Mice. *Exp. Biol. Med. (Maywood)* 233(1), 64-70.
- Yamamoto. M., Jeyaseelan. S., Young. S.k., Arndt. P.G., Akira. S., Kolls. J.K., Worthen. G.S. (2006). Toll/IL-1R Domain-Containing Adaptor Protein (TIRAP) is a Critical Mediator of Antibacterial Defense in the Lung Against *Klebsiella pneumoniae* But Not *Pseudomonas aeruginosa*. *J Immunol.* 177:538-547.
- Yang, F.L., Yang, Y.L., Liao P.C. (2011). Structure and Immunological Characterization of The Capsular Polysaccharide of a Pyrogenic Liver Abscess Caused by *Klebsiella pneumoniae*: Activation of Macrophages Through Toll-like Receptor 4. *J.Biol. Chem.* 286(24), 21041-21051.
- Ye, P., Garvey, P.B., Zhang, P., Nelson, S., Bagby, G., Summer, W.R., et al. (2001). Interleukin-17 and Lung Host Defense against *Klebsiella pneumonia* Infection. *American Journal of Respiratory Cell and Molecular Biology* 25.
- Zandecki, M., Geneviere F., Gerard. J., Gordon, A. (2007). Spurious Counts and Spurious Results on Hematology Analyzers : a Review. Part II : White Blood Cells, Red Cells, Hemoglobin, Red Cell Indices and Reticulocytes. *Int J Lab Hematol.* 29(1).