

DAFTAR PUSTAKA

- Abbasiliasi, S., Tan, J. S., Tengku Ibrahim, T. A., Bashokouh, F., Ramakrishnan, N. R., Mustafa, S., and Ariff, A. B. 2017. Fermentation factors influencing the production of bacteriocins by lactic acid bacteria: A review. *RSC Advances*. 7(47), pp. 29395–29420.
- Ädelroth, P. and Brzezinski, P. 2004. Surface-mediated proton-transfer reactions in membrane-bound proteins. *Biochimica et Biophysica Acta - Bioenergetics*. 1655(1–3), pp. 102–115.
- Adzitey, F. 2015. World's Veterinary Journal Antibiotic Classes and Antibiotic Susceptibility of Bacterial Isolates from Selected Poultry; A Mini Review. *World's Vet. J. Journal World Vet J*. 5(53), pp. 36–41.
- Amann, S., Neef, K. and Kohl, S. 2019. Antimicrobial resistance (AMR). *European Journal of Hospital Pharmacy*. 26(3), pp. 175–177.
- Andarilla, W., Sari, R. and Apridamayanti, P. 2018. Optimasi Aktivitas Bakteriosin yang Dihasilkan oleh *Lactobacillus casei* dari Sotong Kering. *Jurnal Pendidikan Informatika dan Sains*. 7(2), pp. 187–196.
- Ariyanti, M. 2017. Karakteristik Mutu Biji Kakao (*Theobroma Cacao L*) Dengan Perlakuan Waktu Fermentasi Berdasar SNI 2323-2008. *Jurnal Industri Hasil Perkebunan*. 12(1), pp. 34–42.
- Ayertey, E., Zakpaa, H. D. and Ndubueze, B. O. 2017. Screening, Isolation and Characterization of Lactic Acid Bacteria strains in Fermenting Cocoa Heaps from the Eastern Region of Ghana. *Scientect Journal of Life Sciences*. 1(1), pp. 1–7.
- De Azevedo, P. O. D. S., Molinari, F. and Oliveira, R. P. D. S. 2018. Importance of the agar-media in the evaluation of bacteriocin activity

- against the same test-microorganisms. *Brazilian Journal of Pharmaceutical Sciences*. 54(1), pp. 1–6.
- Bintsis, T. 2018. Lactic acid bacteria as starter cultures: An update in their metabolism and genetics. *AIMS Microbiology*. 4(4), pp. 665–684.
- Cesur, S. and Demiröz, A. P. 2013. Antibiotics and the Mechanisms of Resistance to Antibiotics. *Medical Journal of Islamic World Academy of Sciences*. 21(4), pp. 138–142.
- Chatterjee, M., Jana, S. C. and Raychauduri, U. 2018. Optimization of Media and Culture Conditions for Improved Production of Bacteriocin by Using Conventional One-Factor-At-A-Time (OFAT) Method. *EC Microbiology*. 8, pp. 251–258.
- Cheigh, C., Choi, H., Park H., Kim, S.B., Kook, M. C., Kim, T. S., Hwang, J. K., and Pyun, Y.R. 2002. Influence of growth conditions on the production of a nisin-like bacteriocin by *Lactococcus lactis* subsp. *lactis* A164 isolated from kimchi. *Journal of Biotechnology*. 95(3), pp. 225–235.
- Chen, C. and Huang, Y. (2014). New epidemiology of *Staphylococcus aureus* infection in Asia. *European Society of Clinical Infectious Diseases*. 20(7), pp. 605–623.
- Corry, J. E. L., Curtis, G. D. W. and Baird, R. M. 2012. Handbook of Culture Media for Food and Water Microbiology. *Royal Society Publishing*
- Desriac, F., Jégou, C., Balnois, E., Brillet, B., Le Chevalier, P., and Fleury, Y. 2013. Antimicrobial peptides from marine proteobacteria. *Marine Drugs*, 11(10), pp. 3632–3660.
- Drahansky, M., Paridah, M., Moradbak, A., Mohamed, A.Z., Owolabi, Folahan Asniza, M., and Abdul Khalid, S. 2016. Lactic Acid Bacteria as Source of Functional Ingredients. *Intech*. p. 13.

- Fahrurrozi, Rahayu, E.P., Nugroho, I.B., and Lisdiyanti, P. 2019. Lactic acid bacteria (LAB) isolated from fermented cocoa beans prevent the growth of model food-contaminating bacteria. *AIP Conference Proceedings*.
- Fitriyana, N. I. and Suwasono, S. 2015. Isolasi Dan Identifikasi Bakteri Asam Laktat Indigenous Dari Fermentasi Alami Biji Kakao Sebagai Kandidat Agen Antikapang. *Agrointek*. 9(1), pp. 33–41.
- Frieden, T. 2019. Antibiotic resistance threats in the United States. *Centers for Disease Control and Prevention*, p. 114.
- Hayek, S. A. and Ibrahim, S. A. 2013. Current limitations and challenges with lactic acid bacteria: a review. *Food and Nutrition Sciences*. pp. 73–87.
- Ilić, S. *et al.* (2010) ‘The impact of different carbon and nitrogen sources on antibiotic production by *Streptomyces hygroscopicus* CH-7’, *Current Research, Tecgnology and Education Topics in Applied Microbiology and Microbial Biotechnology*. pp. 1337–1342.
- Ismail, Y. S. and Yulvizar, C. 2017. Isolasi, Karakterisasi dan Uji Aktivitas Antimikroba Bakteri Asam Laktat dari Fermentasi Biji Kakao (*Theobroma cacao* L.). *Bioleuser*, 1(2), pp. 45–53.
- Ismail, Y. S., Yulvizar, C. and Mazhitov, B. 2018. Characterization of lactic acid bacteria from local cows milk kefir. *IOP Conference Series: Earth and Environmental Science*. 130(1), pp. 0–8.
- Iyapparaj, P., Maruthiah, T., Ramasubburayan, R., Prakash, S., Kumar, C., Immanuel, G., and Palavesam, A. 2013. Optimization of bacteriocin production by *Lactobacillus* sp. MSU3IR against shrimp bacterial pathogens. *Aquatic Biosystems*. 9(1), pp. 1–10.
- Khoiriyah, H. and Ardiningsih, P. 2014. Penentuan Waktu Inkubasi Optimum terhadap Aktivitas Bakteriosin *Lactobacillus* sp. *Jkk*. 3(4), pp. 52–56.
- Kohanski, M. A., Dwyer, D. J. and Collins, J. J. 2010. How antibiotics kill

- bacteria: From targets to networks. *Nature Reviews Microbiology*. 8(6), pp. 423–435.
- Kusnadi. 2012. Bab 4 Pertumbuhan Dan Kontrol Bakteri. *Common Text Mikrobiologi*. pp. 43–89.
- Lee, Y. M., Kim, J. S. and Kim, W. J. 2012. Optimization for the maximum bacteriocin production of *Lactobacillus brevis* DF01 using response surface methodology. *Food Science and Biotechnology*. 21(3), pp. 653–659.
- Lim, S. M. 2010. Cultural conditions and nutritional components affecting the growth and bacteriocin production of *Lactobacillus plantarum* KC21. *Food Science and Biotechnology*. 19(3), pp. 793–802.
- Malheiros, P. S., Anna, V.S., Todorov, S.D., and Franco, B.D. 2015. Optimization of growth and bacteriocin production by *Lactobacillus sakei* subsp. *sakei* 2a. *Brazilian Journal of Microbiology*. 834, pp. 825–834.
- Mardalena, M. 2016. Fase Pertumbuhan Isolat Bakteri Asam Laktat (BAL) Tempoyak Asal Jambi yang Disimpan Pada Suhu Kamar. *Jurnal Sain Peternakan Indonesia*. 11(1), pp. 58–66.
- Martono, B. 2013. Karakteristik Morfologi dan Kegiatan Plasma Nutfah Tanaman Kakao. *Balai Penelitian Tanaman Industri dan Penyegar*. pp. 15–28.
- Mitra, S., Chakrabartty, P. K. and Biswas, S. R. 2005. Production and characterization of nisin-like peptide produced by a strain of *Lactococcus lactis* isolated from fermented milk. *Current Microbiology*. 51(3), pp. 183–187.
- Mitra, S., Chakrabartty, P. K. and Biswas, S. R. 2007. Production of nisin Z by *Lactococcus lactis* isolated from Dahi. *Applied Biochemistry and Biotechnology*. 143(1), pp. 41–53.
- Von Mollendorff, J. W., Todorov, S. D. and Dicks, L. M. T. 2009.

- Optimization of Growth Medium for Production of Bacteriocins Produced By *Lactobacillus Plantarum* Jw3Bz and Jw6Bz, and *Lactobacillus Fermentum* Jw11Bz and Jw15Bz Isolated From Boza. *Trakia Journal of Sciences*. 7(1), pp. 22–33.
- Nandhini, S. U. and Selvam, M. M. 2013. Bioactive compounds produced by *Streptomyces* strain. *Academic Sciences*. 5(3), pp. 13–15.
- Nematollahi, A., Sohrabvandi, S., Mortazavian, A.M., and Jazaeri, S. 2016. Viability of probiotic bacteria and some chemical and sensory characteristics in cornelian cherry juice during cold storage. *Electronic Journal of Biotechnology*. Elsevier B.V., 21, pp. 49–53.
- Ooi, M., Mazlan, N., Foo, H., Loh, T.C., Rosfarizan, M., Rahim, R.A., and Ariff, A. 2015. Effects of carbon and nitrogen sources on bacteriocin-inhibitory activity of postbiotic metabolites produced by *Lactobacillus plantarum* I-UL4. *Malaysian Journal of Microbiology*. 11(2), pp. 176–184
- Parada, J., Caron, C., Medeiros, A.B., and Soccol, C.R. 2007. Bacteriocins from lactic acid bacteria: Purification, properties and use as biopreservatives. *Brazilian Archives of Biology and Technology*. 50(3), pp. 521–542.
- Paul, R.K., Dutta, D., Chakraborty, D., Nayak, A., Dutta, P.K., Nag, M. 2019. Antimicrobial agents from natural sources: An overview. *Advance Pharmaceutical Journal*. 4(2), pp. 41–51.
- Paulová, L., Patáková, P. and Brányik, T. 2013. Advanced Fermentation Processes. *Engineering Aspects of Food Biotechnology*. pp. 89–110.
- Perez, R., Perez, M. T. and Elegado, F. 2015. Bacteriocins from Lactic Acid Bacteria: A Review of Biosynthesis, Mode of Action, Fermentative Production, Uses, and Prospects. *International Journal of Philippine Science and Technology*. 8(2), pp. 61–67.
- Pirmoradian, M. and Hooshmand, T. 2019. Remineralization and

antibacterial capabilities of resin-based dental nanocomposites, *Applications of Nanocomposite Materials in Dentistry. Elsevier Inc.* p. 237-269

Prabowo, S. K. 2010. Produksi Bakteriosin Dari Bakteri Asam Laktat Galur Scg 1223 Dalam Media Molasses.

Preetha, R., Jayaprakash, N.S., Philip, R., Bright Singh, I. S. 2007. Optimization of carbon and nitrogen sources and growth factors for the production of an aquaculture probiotic (*Pseudomonas* MCCB 103) using response surface methodology. *Journal of Applied Microbiology*. 102(4), pp. 1043–1051.

Rahman, V., Anggraini, D. and Fauziah, D. 2015. Pola Resistensi *Acinetobacter baumannii* yang di Isolasi di Intensive Care Unit (ICU) RSUD Arifin Achmad Provinsi Riau Periode 1 Januari Hingga 31 Desember 2014. *Jom FK*. 2(2), pp. 1–2.

Rakhmanova, A., Ashiq, Z. and Shah, K. 2018. A mini review fermentation and preservation : role of Lactic Acid Bacteria. *MOJ Food Process Technol*. 6(5), pp. 414–417.

Ranadheera, C. S., Evans, C. A., Baines, S. K., Balthazar, C. F., Cruz, A. G., Esmerino, E. A. Freitas, M. Q., Pimentel, T. C., Wittwer, A. E., Naumovski, N., Graça, J. S., Sant'Ana, A. S., Ajlouni, S., and Vasiljevic, T. 2019. Probiotics in Goat Milk Products: Delivery Capacity and Ability to Improve Sensory Attributes. *Comprehensive Reviews in Food Science and Food Safety*. 18, pp. 867–882.

Ruiz, B. Chávez, A., Forero, A., García-Huante, Y., Romero, A., Snchez, M., Rocha, D., Snchez, B., Rodríguez-Sanoja, R., Sánchez, S., and Langley, E. 2010. Production of microbial secondary metabolites: Regulation by the carbon source. *Critical Reviews in Microbiology*. 36(2), pp. 146–167.

- Sánchez, S., Chávez, A., Forero, A., García-Huante, Y., Romero, A., Sánchez, M., Rocha, D., Sánchez, B., Valos, M., Guzmán-Trampe, S., Rodríguez-Sanoja, R., Langley, E., and Ruiz, B. 2010. Carbon source regulation of antibiotic production. *Journal of Antibiotics*. 63(8), pp. 442–459.
- Sikorska, H. and Smoragiewicz, W. 2013. Role of probiotics in the prevention and treatment of meticillin-resistant *Staphylococcus aureus* infections. *International Journal of Antimicrobial Agents*.
- Subagiyo, S., Margino, S. and Triyanto, T. 2016. Pengaruh Penambahan Berbagai Jenis Sumber Karbon, Nitrogen Dan Fosfor pada Medium deMan, Rogosa and Sharpe (MRS) Terhadap Pertumbuhan Bakteri Asam Laktat Terpilih Yang Diisolasi Dari Intestinum Udang *Penaeid*. *Jurnal Kelautan Tropis*. 18(3), p. 127.
- Suganthi, V. and Mohanasrinivasan, V. 2015. Optimization studies for enhanced bacteriocin production by *Pediococcus pentosaceus* KC692718 using response surface methodology. *J Food Sci Technol*. 52, pp. 3773–3783.
- Sulistiyarsi, A. and Ardhi, M. W. 2016. Pengaruh Konsentrasi dan Lama Inkubasi terhadap Kadar Protein Crude Enzim Selulase dari Kapang *Aspergillus niger*. *Proceeding Biology Education Conference*. 13(1), pp. 781–786.
- Syakir, M. 2010. Budidaya dan Pasca Panen Kakao. *Pusat Penelitian dan Pengembangan Perkebunan*.
- Syukur, S. 2012. Bioteknologi Dasar dan Bakteri Asam Laktat Antimikrobia. *Lembaga Pengembangan Teknologi Informasi dan Komunikasi Universitas Andalas*.
- Tenover, F. C. 2006. Mechanisms of Antimicrobial Resistance in Bacteria. *American Journal of Medicine*. 119(6 Suppl. 1).

- Todorov, S. Gotcheva, B., Dousset, X., Onno, B., and Ivanova, I. 2000. Influence of growth medium on bacteriocin production in *Lactobacillus plantarum* ST31. *Biotechnology and Biotechnological Equipment*. 14(1), pp. 50–55.
- Todorov, S. D. and Dicks, L. M. T. 2004. Effect of medium components on bacteriocin production by *Lactobacillus pentosus* ST151BR, a strain isolated from beer produced by the fermentation of maize, barley and soy flour. *World Journal of Microbiology and Biotechnology*. 20(6), pp. 643–650.
- Todorov, S. D. and Dicks, L. M. T. 2005. Effect of growth medium on bacteriocin production by *Lactobacillus plantarum* ST194BZ, a strain isolated from boza. *Food Technology and Biotechnology*. 43(2), pp. 165–173.
- Todorov, S. D., van Reenan, C. A. and Dicks, L. M. T. 2004. Optimization of bacteriocin production by *Lactobacillus plantarum* ST13BR, a strain isolated from barley beer. *Journal of General and Applied Microbiology*. 50(3), pp. 149–157.
- Turgis, M. Vu, K. D., Millette, M., Dupont, C., and Lacroix, M. 2016. Influence of Environmental Factors on Bacteriocin Production by Human Isolates of *Lactococcus lactis* MM19 and *Pediococcus acidilactici* MM33. *Probiotics and Antimicrobial Proteins*. 8(1), pp. 53–59.
- Ullah, H. 2017. Classification of Anti - Bacterial Agents and Their Functions. *Intech*.
- Usmiati, S. and Marwati, T. 2007. Seleksi Dan Optimasi Proses Produksi Bakteriosin Dari *Lactobacillus* sp. *Jurnal Pascapanen*. 4(1), pp. 27–37.

- Vinderola, G., Ouwehand, A. C., Salminen, S., Wright, A. 2019. Lactic Acid Bacteria: Microbiological and Functional Aspects. 5th edn. Boca Raton: *CRC Press*.
- Wibowo, J. T. 2015. Resistensi Bakteri Patogen dan Strategi Mengatasi Bakteri Resisten. *Oceana*, 40(3), pp. 11–17.
- Yeo, S.-K., Ewe, J-A., Tham, C. S., and Liong, M. 2011. Carriers of Probiotic Microorganisms. *Microbiology Monographs*. pp. 191–220.
- Yuliana, N. 2008. Kinetika Pertumbuhan Bakteri Asam Laktat Isolat T5 Yang Berasal Dari Tempoyak. *Jurnal Teknologi Industri dan Hasil Pertanian*. 13(2), pp. 108–116.
- Yumas, M. 2017. Pemanfaatan Limbah Kulit Ari Biji Kakao (*Theobroma cacao* L) Sebagai Sumber Antibakteri Streptococcus mutans. *Jurnal Industri Hasil Perkebunan*. 12, pp. 7–20.
- Zacharof, M. P. and Lovitt, R. W. 2012. Bacteriocins Produced by Lactic Acid Bacteria a Review Article. *APCBEE Procedia*. 2, pp. 50–56.