

Daftar Pustaka

- Arslan, N. P., Azad, F., Orak, T., Budak-Savas, A., Ortucu, S., Dawar, P., ... & Taskin, M. (2025). A review on bacteria-derived antioxidant metabolites: their production, purification, characterization, potential applications, and limitations. *Archives of Pharmacal Research*, 1-40.
- Antwi-Boasiako, C., Agbemade, B., Ko, J. H., Barone, V., Uzarski, R. L., & Lee, C. Y. (2025). Synthesis and evaluation of water-soluble antioxidants derived from l-carnosine and syringaldehyde (or vanillin). *Biochimie*, 230, 1-9.
- Benhamada, N., Benhamada, O., Mellit, S., Idoui, T. (2025). In vitro study of antioxidant activity of lactic acid bacterial strains isolated from Algerian fermented products. *Acta Scientiarum – Biological Sciences*, 47(2), e73581.
- Buron-Moles, G., Chailyan, A., Dolejs, I., Forster, J., & Mikš, M. H. (2019). Uncovering carbohydrate metabolism through a genotype-phenotype association study of 56 lactic acid bacteria genomes. *Applied Microbiology and Biotechnology*, 103(7), 3135–3152. <https://doi.org/10.1007/s00253-019-09701-6>
- Castellone, V., Bancalari, E., Rubert, J., Gatti, M., Neviani, E., & Bottari, B. (2021). Eating fermented: Health benefits of LAB-fermented foods. *Foods*, 10(11), 2639.
- Catarino, R. P. F., Mascareli, V. A. B., Leite da Costa, V. L., Pavanello, A. C. L., & Spinosa, W. A. (2025). Sustainability and influencing factors in bacterial cellulose production: A review of the impact of microorganisms, culture media and cultivation methods. *Food Technology and Biotechnology*, 63(3), 332-350.

Chen, W. (Ed.). (2019). *Lactic acid bacteria: omics and functional evaluation*. Springer.

Chen, N., Chu, J., Liu, B., Zhu, T., Wang, Y., & Li, T. (2025). Research Progress on Compounds with Antioxidant Activity Derived from Microorganisms. *Mini-Reviews in Organic Chemistry*, 22(4), 381-399.

Concepcion, N., Guerrero, J., & Bueno, Y. (2020). Screening of Sourdough *Lactobacillus* Spp. for Antimicrobial Compound Production. *ACTA MICROSCOPICA*, 29(5), 2607-2616.

Devi, N., Sharma, A., Kumar, P., Chauhan, S., & Chand, D. (2026). Fermentation process optimization for pharmaceutical production. In *Bioinformatics, AI, and Machine Learning in Microbial Drug Development* (pp. 213-232). Academic Press.

Ding, L., Lü, X., Gao, Y., Guo, X. (2021). Screening for and Identification of Lactic Acid Bacteria with Antioxidant Activity from the Intestinal Tract of Fish. *Food Science*, 42(1), 78–85.

Düz, M., Doğan, Y. N., Doğan, İ. (2020). Antioxidant activity of *Lactobacillus plantarum*, *Lactobacillus sake*, and *Lactobacillus curvatus* strains isolated from fermented Turkish sucuk. *Anais da Academia Brasileira de Ciências*, 92(2), e20191016.

Fabbri, L. P., Cavallero, A., Vidotto, F., & Gabriele, M. (2024). *Bioactive Peptides from Fermented Foods : Production Approaches , Sources , and Potential Health Benefits*.

Fan, B., Chen, H., Song, W.-Y., & Wang, G. (2020). *Advances in lactic acid bacteria gene modification*. *China Biotechnology*, 40(9), 25–34

Goa, T., Beyene, G., Mekonnen, M., & Gorems, K. (2022). Isolation and Characterization of Lactic Acid Bacteria from Fermented Milk Produced

in Jimma Town, Southwest Ethiopia, and Evaluation of their Antimicrobial Activity against Selected Pathogenic Bacteria. *International Journal of Food Science*, 2022. <https://doi.org/10.1155/2022/2076021>

Germeç, M., Özcan, A., & Turhan, I. (2024). Effect of process parameters and media on the production of ethanol by *Scheffersomyces stipitis* in shake flask fermentation. *Biomass Conversion and Biorefinery*, 14(14), 16415-16424.

Górska, S., Grycko, P., Rybka, J., & Gamian, A. (2007). *Exopolysaccharides of lactic acid bacteria: Structure and biosynthesis*. *Postępy Higieny i Medycyny Doświadczalnej (Online)*, 61, 805

Hastuti, H., Muhidu, A., & Rastin, R. (2025). *Indonesia's Marine Economic Potential As A Maritime Country*. *International Journal of Science, Technology & Management*. DOI:10.46729/ijstm.v4i4.897

He, X., Cui, Y., Jia, Q., & Ding, Y. (2025). *Response mechanisms of lactic acid bacteria under environmental stress and their application in the food industry*. *Food Bioscience*, 59, 104050.

Isfara Sutja, I., Wijanarka, W., & Kusdiyantini, E. (n.d.). Uji dan identifikasi aktivitas antioksidan isolat BAL CIN-2 hasil isolasi cincalok. *Jurnal Penelitian Saintek*, 27(1), 49–60.

Huang, Y.-J., Liu, D., Zhao, L.-F., Gu, R.-X. (2013). In vitro antioxidant activities of six lactic acid bacteria isolated from human intestinal tract. *Modern Food Science and Technology*, 29(8), 2110–2116.

Kavak, A. E., Selen, V., & Tamtürk, F. (2022). Optimization of Media Composition for Maximum Growth of Probiotic *Lactobacillus fermentum* NBC-08 using response surface methodology. *Yuzuncu Yil University Journal of Agricultural Sciences*, 32(1), 69-80.

- Kuo, H. C., Kwong, H. K., Chen, H. Y., Hsu, H. Y., Yu, S. H., Hsieh, C. W., Lin, H. W., Chu, Y. L., & Cheng, K. C. (2021). Enhanced antioxidant activity of *Chenopodium formosanum* Koidz. By lactic acid bacteria: Optimization of fermentation conditions. *PLoS ONE*, *16*(5 May). <https://doi.org/10.1371/journal.pone.0249250>
- Kusumawati, D. E., Safira Purwanto, U. M., Bintang, M., & Pasaribu, F. H. (2021). Analisis Profil Senyawa Metabolit Bakteri Endofit Daun Miana (*Coleus scutellarioides*) menggunakan GC-MS. *Current Biochemistry*, *8*(2).
- Liu, M., Lu, Y., Xue, G., Han, L., Jia, H., Wang, Z., ... & Zhou, Y. (2024). Role of short-chain fatty acids in host physiology. *Animal Models and Experimental Medicine*, *7*(5), 641-652.
- Łepecka, A., Szymański, P., Okoń, A. (2025). Isolation, identification, and evaluation of the antioxidant properties of lactic acid bacteria strains isolated from meat environment. *PLOS ONE*, *20*(1), e0300153.
- Maftai, N., Raileanu, C. R., Balta, A. A., Ambrose, L., Boev, M., Marin, D. B., & Lisa, E. L. (2024). *The Potential Impact of Probiotics on Human Health : An Update on Their Health-Promoting Properties*. 1–29.
- Martins, A. C., & de Cinque Almeida, V. (2015). Ferric Reducing Antioxidant Power Method Adapted to FIA. In *Flow Injection Analysis of Food Additives* (pp. 603-614). CRC Press.
- Mazguene, S. (2023). *Lactic acid bacteria metabolism: Mini-review*. *Current Nutrition and Food Science*, *19*(5), 654–662.
- Narzary, Y., Das, S., Goyal, A. K., Lam, S. S., Sarma, H., & Sharma, D. (2021). Fermented fish products in South and Southeast Asian cuisine: indigenous technology processes, nutrient composition, and cultural significance. *Journal of Ethnic Foods*, *8*(1). <https://doi.org/10.1186/s42779-021-00109->

- Naseer, F. (n.d.). Role of Epigenetic Modification , Epigenetic Biomarkers and Dietary Supplements in Neurodegenerative Diseases Health Care : *Current Reviews*. 1–5. <https://doi.org/10.35248/2375-4273.19.7.242>
- Navarré, A., Nazareth, T., Luz, C., Meca, G., & Escrivá, L. (2024). Characterization of lactic acid bacteria isolated from human breast milk and their bioactive metabolites with potential application as a probiotic food supplement. *Food and Function*, *15*(15), 8087–8103. <https://doi.org/10.1039/d4fo02171a>
- Nisah, S. A., Liviawaty, E., Rostini, I., Afrianto, E., & Pratama, R. I. (2021). Karakteristik organoleptik pada kembang dengan menggunakan berbagai media fermentasi. *Jurnal Akuatek*, *2*(2), 130-139.
- Phan, Y. T. N., Tang, M. T., Tran, T. T. M., Nguyen, V. H., Nguyen, T. H., Tsuruta, T., & Nishino, N. (2017). Diversity of lactic acid bacteria in vegetable-based and meat-based fermented foods produced in the central region of Vietnam. *AIMS microbiology*, *3*(1), 61.
- Price, P. J. (2017). Best practices for media selection for mammalian cells. *In Vitro Cellular & Developmental Biology-Animal*, *53*(8), 673-681.
- Rahaman, M. M., Hossain, R., Herrera-Bravo, J., Islam, M. T., Atolani, O., Adeyemi, O. S., & Sharifi-Rad, J. (2023). Natural antioxidants from some fruits, seeds, foods, natural products, and associated health benefits: An update. *Food science & nutrition*, *11*(4), 1657-1670.
- Rani, A., Saini, K. C., Bast, F., Mehariya, S., Bhatia, S. K., Lavecchia, R., & Zuurro, A. (2021). Microorganisms: a potential source of bioactive molecules for antioxidant applications. *Molecules*, *26*(4), 1142.

- Ramadhanti, B. W., Sumardianto, S., & Romadhon, R. (2024). Karakteristik mutu dan kandungan senyawa volatil bekasam cumi-cumi dengan lama fermentasi yang berbeda. *Jurnal Pengolahan Hasil Perikanan Indonesia*, 27(3), 208-222.
- Raveschot, C., Cudennec, B., Coutte, F., Flahaut, C., Fremont, M., Drider, D., & Dhulster, P. (2018). Production of bioactive peptides by *Lactobacillus* species: from gene to application. *Frontiers in microbiology*, 9, 2354.
- Sarıtaş, S., Portocarrero, A. C. M., Miranda López, J. M., Lombardo, M., Koch, W., Raposo, A., ... & Witkowska, A. M. (2024). The impact of fermentation on the antioxidant activity of food products. *Molecules*, 29(16), 3941.
- Sato, A., Watanabe, A., Muraki, K., Kobayashi, M. (2024). Novel Indirect Antioxidant Activity Independent of Nrf2 Exerted by Lactic Acid Bacteria. *International Journal of Molecular Sciences*, 25(7), 3208.
- Shah, A. A., & Gupta, A. (2022). Antioxidants in health and disease with their capability to defend pathogens that attack apple species of Kashmir. In *Plant Antioxidants and Health* (pp. 411-435). Cham: Springer International Publishing.
- Shi, Y., Cui, X., Gu, S., Ge, J. (2019). Antioxidative and Probiotic Activities of Lactic Acid Bacteria Isolated from Traditional Artisanal Milk Cheese from Northeast China. *Probiotics and Antimicrobial Proteins*, 11(4), 1208–1218.
- Sood, D., Devi, S., Devi, B., & Arya, P. (2023). Microbial Antioxidants in Food Products. In *Microbes for Natural Food Additives* (pp. 27-51). Singapore: Springer Nature Singapore.

- Sørensen, H. M., Rochfort, K. D., Maye, S., & Freeland, B. (2022). *Exopolysaccharides of lactic acid bacteria: Production, purification and health benefits towards functional food*. *Nutrients*, 14(19), 4124
- Sørensen, H. M., Rochfort, K. D., Maye, S., & Freeland, B. (2023). *Bioactive ingredients from dairy-based lactic acid bacterial fermentations for functional food production and their health effects*. *Nutrients*,
- Stabnikov, V., Kovshar, I., & Stabnikova, O. (2025). *Recent advances in the study of the properties and applications of lactic acid bacteria*. *World Journal of Microbiology and Biotechnology*, 41(4), 86
- Suteja, I. I., Wijanarka, W., & Kusdiyantini, E. (2022). *Uji dan identifikasi aktivitas antioksidan isolat BAL CIN-2 hasil isolasi cincalok*. *Jurnal Penelitian Sainstek*, 49-60.
- Uthayasooryan, M., Pathmanathan, S., Ravimannan, N., & Sathyaruban, S. (2016). *Formulation of alternative culture media for bacterial and fungal growth*.
- Wahdaniah, W., Erika, M., & Purwaningsih, I. (2020). *Aktivitas Antioksidan Fraksi Metanol Daun Jeringau Merah (Acorus Sp.) Metode DPPH*. *Jurnal Laboratorium Khatulistiwa*, 4(1), 26-33.
- Wang, S., Zhang, C., Liu, G., Chen, Z. (2023). *Research Progress of Antioxidant Activity of Lactic Acid Bacteria in Livestock and Poultry Production*. *Chinese Journal of Animal Nutrition*, 35(10), 4521–453
- Wang, Y., Dong, Y., Xia, X., Zhou, J. (2019). *Isolation and Identification of Lactobacillus fermentum Strain P13 with High Anti-oxidative Activity and Its Stress Tolerance Properties*. *Journal of Chinese Institute of Food Science and Technology*, 19(9), 125–132.

- Wang, Y., Tian, F. (2025). Effects of different lactic acid bacteria fermentation on quality and antioxidant activity of black chokeberry juice. *China Brewing*, 46(5), 89–96
- Wu, W., & Zhang, B. (2019). Lactic acid bacteria and b vitamins. In *Lactic acid bacteria: bioengineering and industrial applications* (pp. 43-60). Singapore: Springer Singapore.
- Xing, J., Wang, G., Zhang, Q., Chen, W. (2015). Determining antioxidant activities of lactobacilli cell-free supernatants by cellular antioxidant assay: A comparison with traditional methods. *PLoS ONE*, 10(3): e0119835.
- Yan, X. T., Zhang, Z., Wang, Y., Zhang, W., Zhang, L., Liu, Y., ... & Gu, R. (2023). Antioxidant capacity, flavor and physicochemical properties of FH06 functional beverage fermented by lactic acid bacteria: a promising method to improve antioxidant activity and flavor of plant functional beverage. *Applied Biological Chemistry*, 66(1), 7.
- Yin, S., Du, X., Zhang, X., Wang, Y. (2024). Research Progress in the Antioxidant Mechanism of Lactic Acid Bacteria and Its Application in the Food Field. *Food Science*, 45(3), 201–212.
- Zhao, Y. S., Eweys, A. S., Zhang, J. Y., Zhu, Y., Bai, J., Darwesh, O. M., ... & Xiao, X. (2021). Fermentation affects the antioxidant activity of plant-based food material through the release and production of bioactive components. *Antioxidants*, 10(12), 2004.
- Zhou, Z., Zeng, X., Wu, Z., Pan, D. (2023). Relationship of Gene-Structure-Antioxidant Ability of Exopolysaccharides Derived from Lactic Acid Bacteria: A Review. *Journal of Agricultural and Food Chemistry*, 71(22), 8074–8087.