

REFERENCES

- Ahmed, A. S., El-Bassiony, T., Elmalt, L. M., & Ibrahim, H. R. (2015). Identification of potent antioxidant bioactive peptides from goat milk proteins. *Food Research International*, 74, 80–88. <https://doi.org/10.1016/j.foodres.2015.04.032>
- Aliyu, M., Zohora, F. T., Anka, A. U., Ali, K., Maleknia, S., Saffarioun, M., & Azizi, G. (2022). Interleukin-6 cytokine: An overview of the immune regulation, immune dysregulation, and therapeutic approach. *International Immunopharmacology*, 111, 109130. <https://doi.org/10.1016/j.intimp.2022.109130>
- ALKaisy, Q. H., Al-Saadi, J. S., Al-Rikabi, A. K. J., Altemimi, A. B., Hesarinejad, M. A., & Abedelmaksoud, T. G. (2023). Exploring the health benefits and functional properties of goat milk proteins. *Food Science & Nutrition*, 11(10), 5641–5656. <https://doi.org/10.1002/fsn3.3531>
- Ano, Y., Kutsukake, T., Hoshi, A., Yoshida, A., & Nakayama, H. (2015). Identification of a Novel Dehydroergosterol Enhancing Microglial Anti-Inflammatory Activity in a Dairy Product Fermented with *Penicillium candidum*. *PLOS ONE*, 10(3), e0116598. <https://doi.org/10.1371/journal.pone.0116598>
- Arkan, A. (2022). *KARAKTERISTIK KIMIA, FISIK, SENSORIS, DAN MIKROBIOLOGIS CREAM CHEESE PROBIOTIK DENGAN KULTUR STARTER LOKAL Lactobacillus plantarum DAD-13 DAN Streptococcus thermophilus DAD-11* [PhD Thesis, Universitas Gadjah Mada]. <https://etd.repository.ugm.ac.id/penelitian/detail/207362>
- Asoudeh, F., Djafarian, K., Akhalghi, M., Mahmoudi, M., Jamshidi, A. R., Farhadi, E., & Esmailzadeh, A. (2022). The effect of probiotic cheese consumption on inflammatory and anti-inflammatory markers, disease severity, and symptoms in patients with rheumatoid arthritis: Study protocol for a randomized, double-blind, placebo-controlled trial. *Trials*, 23(1). <https://doi.org/10.1186/s13063-022-06113-2>
- Auestad, N., & Layman, D. K. (2021). Dairy bioactive proteins and peptides: A narrative review. *Nutrition Reviews*, 79(Supplement_2), 36–47. <https://doi.org/10.1093/nutrit/nuab097>
- Baptista, D. P., & Gigante, M. L. (2021). Bioactive peptides in ripened cheeses: Release during technological processes and resistance to the gastrointestinal tract. *Journal of the Science of Food and Agriculture*, 101(10), 4010–4017. <https://doi.org/10.1002/jsfa.11143>
- Cavalheiro, C. P., Ruiz-Capillas, C., Herrero, A. M., Jiménez-Colmenero, F., Pintado, T., De Menezes, C. R., & Fries, L. L. M. (2020). Effect of

- encapsulated *Lactobacillus plantarum* as probiotic on dry-sausages during chilled storage. *International Journal of Food Science & Technology*, 55(12), 3613–3621. <https://doi.org/10.1111/ijfs.14695>
- Chen, S., Saeed, A. F. U. H., Liu, Q., Jiang, Q., Xu, H., Xiao, G. G., Rao, L., & Duo, Y. (2023). Macrophages in immunoregulation and therapeutics. *Signal Transduction and Targeted Therapy*, 8(1). <https://doi.org/10.1038/s41392-023-01452-1>
- Choi, J., Sabikhi, L., Hassan, A., & Anand, S. (2012). Bioactive peptides in dairy products. *International Journal of Dairy Technology*, 65(1), 1–12. <https://doi.org/10.1111/j.1471-0307.2011.00725.x>
- de Oliveira, C. M. S., Grisi, C. V. B., Silva, G. de S., Lopes Neto, J. H. P., de Medeiros, L. L., dos Santos, K. M. O., & Cardarelli, H. R. (2023). Use of *Lactiplantibacillus plantarum* CNPC 003 for the manufacture of functional skimmed fresh cheese. *International Dairy Journal*, 141, 105628. <https://doi.org/10.1016/j.idairyj.2023.105628>
- Domínguez-Horta, M. D. C., Serrano-Díaz, A., Hernández-Cedeño, M., Martínez-Donato, G., & Guillén-Nieto, G. (2023). A peptide derived from HSP60 reduces proinflammatory cytokines and soluble mediators: A therapeutic approach to inflammation. *Frontiers in Immunology*, 14, 1162739. <https://doi.org/10.3389/fimmu.2023.1162739>
- FAO/WHO (Ed.). (2006). *Probiotics in food: Health and nutritional properties and guidelines for evaluation*. Food and Agriculture Organization of the United Nations : World Health Organization.
- Fox, P. F., Guinee, T. P., Cogan, T. M., & McSweeney, P. L. H. (2017). *Fundamentals of Cheese Science*. Springer US. <https://doi.org/10.1007/978-1-4899-7681-9>
- Fox, P. F., & McSweeney, P. L. H. (2017). Cheese: An Overview. In *Cheese* (pp. 5–21). Elsevier. <https://doi.org/10.1016/B978-0-12-417012-4.00001-6>
- Franzoni, G., Mecocci, S., De Ciucis, C. G., Mura, L., Dell'Anno, F., Zinellu, S., Fruscione, F., De Paolis, L., Carta, T., Anfossi, A. G., Dei Guidici, S., Chiaradia, E., Pascucci, L., Oggiano, A., Cappelli, K., & Razzuoli, E. (2023). Goat milk extracellular vesicles: Immuno-modulation effects on porcine monocyte-derived macrophages in vitro. *Frontiers in Immunology*, 14, 1209898. <https://doi.org/10.3389/fimmu.2023.1209898>
- Fröhlich-Wyder, M., Arias-Roth, E., & Jakob, E. (2019). Cheese yeasts. *Yeast*, 36(3), 129–141. <https://doi.org/10.1002/yea.3368>
- Gebara, C., Ribeiro, M. C. E., Chaves, K. S., Gandara, A. L. N., & Gigante, M. L. (2015). Effectiveness of different methodologies for the selective enumeration of *Lactobacillus acidophilus* La5 from yoghurt and Prato

- cheese. *LWT - Food Science and Technology*, 64(1), 508–513.
<https://doi.org/10.1016/j.lwt.2015.04.061>
- Ghalamara, S., Brazinha, C., Silva, S., & Pintado, M. (2024). Valorization of Fish Processing by-Products: Biological and Functional Properties of Bioactive Peptides. *Current Food Science and Technology Reports*, 2(4), 393–409.
<https://doi.org/10.1007/s43555-024-00045-5>
- Gobbetti, M., Di Cagno, R., Calasso, M., Neviani, E., Fox, P. F., & De Angelis, M. (2018). Drivers that establish and assembly the lactic acid bacteria biota in cheeses. *Trends in Food Science & Technology*, 78, 244–254.
<https://doi.org/10.1016/j.tifs.2018.06.010>
- Grujović, M. Ž., Marković, K. G., Morais, S., & Semedo-Lemsaddek, T. (2024). Unveiling the Potential of Lactic Acid Bacteria from Serbian Goat Cheese. *Foods*, 13(13), 2065. <https://doi.org/10.3390/foods13132065>
- Guo, Q., Chen, P., & Chen, X. (2023). Bioactive peptides derived from fermented foods: Preparation and biological activities. *Journal of Functional Foods*, 101, 105422. <https://doi.org/10.1016/j.jff.2023.105422>
- Hao, X., Yang, W., Zhu, Q., Zhang, G., Zhang, X., Liu, L., Li, X., Hussain, M., Ni, C., & Jiang, X. (2021). Proteolysis and ACE-inhibitory peptide profile of Cheddar cheese: Effect of digestion treatment and different probiotics. *LWT*, 145, 111295. <https://doi.org/10.1016/j.lwt.2021.111295>
- Husnayain, A., Ekadinata, N., Sulistiawan, D., & Chia-Yu Su, E. (2020). Multimorbidity Patterns of Chronic Diseases among Indonesians: Insights from Indonesian National Health Insurance (INHI) Sample Data. *International Journal of Environmental Research and Public Health*, 17(23), 8900. <https://doi.org/10.3390/ijerph17238900>
- Hussain, M. A., Huxley, R. R., & Al Mamun, A. (2015). Multimorbidity prevalence and pattern in Indonesian adults: An exploratory study using national survey data. *BMJ Open*, 5(12), e009810. <https://doi.org/10.1136/bmjopen-2015-009810>
- Izzo, L., Mikušová, P., Lombardi, S., Sulyok, M., & Ritieni, A. (2022). Analysis of Mycotoxin and Secondary Metabolites in Commercial and Traditional Slovak Cheese Samples. *Toxins*, 14(2), 134.
<https://doi.org/10.3390/toxins14020134>
- Johnson, M. E. (2017). A 100-Year Review: Cheese production and quality. *Journal of Dairy Science*, 100(12), 9952–9965.
<https://doi.org/10.3168/jds.2017-12979>
- Jones, B. E., Maerz, M. D., & Buckner, J. H. (2018). IL-6: A cytokine at the crossroads of autoimmunity. *Current Opinion in Immunology*, 55, 9–14.
<https://doi.org/10.1016/j.coi.2018.09.002>

- Kayacan Çakmakoglu, S., Dere, S., Bekiroğlu, H., Bozkurt, F., Karasu, S., Dertli, E., Türker, M., & Sagdic, O. (2024). Production of bioactive peptides during yogurt fermentation, their extraction and functional characterization. *Food Bioscience*, 61, 104805. <https://doi.org/10.1016/j.fbio.2024.104805>
- Kok, T. (2023). Anti-inflammatory activity of *Lactobacillus* spp. And *Rhodopseudomonas palustris* probiotics. *Bioactive Compounds in Health and Disease - Online ISSN: 2574-0334; Print ISSN: 2769-2426*, 6(4), 63–72. <https://doi.org/10.31989/bchd.v6i4.1067>
- Komalasari, H. & Wahyu Krisna Yoga. (2022). Potensi Bakteri Probiotik Indigenous *Lactobacillus Plantarum* Dad-13 Sebagai Starter Pada Pembuatan Yoghurt Fungsional: Kajian Pustaka. *Food Scientia : Journal of Food Science and Technology*, 2(2), 199–217. <https://doi.org/10.33830/fsj.v2i2.3694.2022>
- Marco, M. L., Sanders, M. E., Gänzle, M., Arrieta, M. C., Cotter, P. D., De Vuyst, L., Hill, C., Holzapfel, W., Lebeer, S., Merenstein, D., Reid, G., Wolfe, B. E., & Hutkins, R. (2021). The International Scientific Association for Probiotics and Prebiotics (ISAPP) consensus statement on fermented foods. *Nature Reviews Gastroenterology & Hepatology*, 18(3), 196–208. <https://doi.org/10.1038/s41575-020-00390-5>
- Mayo, B., Rodríguez, J., Vázquez, L., & Flórez, A. B. (2021). Microbial Interactions within the Cheese Ecosystem and Their Application to Improve Quality and Safety. *Foods*, 10(3), 602. <https://doi.org/10.3390/foods10030602>
- McSweeney, P., Fox, P. F., Cotter, P., Everett, D. W., & McSweeney, P. (2017). *Cheese: Chemistry, Physics and Microbiology* (4th ed). Elsevier Science & Technology.
- McSweeney, P. L. H., Fox, P. F., Cotter, P., Everett, D. W., & McSweeney, P. L. H. (2017). *Cheese: Chemistry, Physics and Microbiology* (4th ed). Elsevier Science & Technology.
- Mirković, M., Mirković, N., Miočinović, J., Radulović, A., Paunović, D., Ilić, M., & Radulović, Z. (2021). Probiotic yogurt and cheese from ultrafiltered milk: Sensory quality and viability of free-living and spray dried *Lactiplantibacillus plantarum* 564 and *Lactiplantibacillus plantarum* 299v. *Journal of Food Processing and Preservation*, 45(9). <https://doi.org/10.1111/jfpp.15713>
- Mirsalami, S. M., & Alihosseini, A. (2023). The effect of *Lactobacillus plantarum* LP-115 strain on improving the savor and aroma of milk containing grape sap through fermentation. *Food and Humanity*, 1, 404–414. <https://doi.org/10.1016/j.foohum.2023.06.013>

- Mohd Zawawi, Z., Kalyanasundram, J., Mohd Zain, R., Thayan, R., Basri, D. F., & Yap, W. B. (2023). Prospective Roles of Tumor Necrosis Factor-Alpha (TNF- α) in COVID-19: Prognosis, Therapeutic and Management. *International Journal of Molecular Sciences*, 24(7), 6142. <https://doi.org/10.3390/ijms24076142>
- Nair, P. K. (2020). *New Trends for Low Moisture Part Skim Mozzarella (Pizza Cheese)*.
- Ngamsomchat, A., Kaewkod, T., Konkit, M., Tragoolpua, Y., Bovonsombut, S., & Chitov, T. (2022). Characterisation of Lactobacillus plantarum of Dairy-Product Origin for Probiotic Chèvre Cheese Production. *Foods*, 11(7), 934. <https://doi.org/10.3390/foods11070934>
- Nicory, I. M. C., De Carvalho Rodrigues, T. C. G., Tosto, M. S. L., Bittencourt, R. F., Mariz, L. D. S., Da Costa, M. P., Dos Santos, G. R., Azevedo, J. A. G., De Carvalho, G. G. P., & Santos, S. A. (2023). Compositional and sensory attributes of Minas Frescal cheese obtained from Anglo Nubian, Moxoto, and Saanen goats in different lactation stages. *International Dairy Journal*, 146, 105742. <https://doi.org/10.1016/j.idairyj.2023.105742>
- Ollinger, N., Malachová, A., Schamann, A., Sulyok, M., Krska, R., & Weghuber, J. (2024). Limited Effectiveness of Penicillium camemberti in Preventing the Invasion of Contaminating Molds in Camembert Cheese. *Foods*, 13(18), 2865. <https://doi.org/10.3390/foods13182865>
- Papademas, P., & Bintsis, T. (Eds.). (2017). *Global Cheesemaking Technology: Cheese Quality and Characteristics* (1st ed.). Wiley. <https://doi.org/10.1002/9781119046165>
- Peres Fabbri, L., Cavallero, A., Vidotto, F., & Gabriele, M. (2024). Bioactive Peptides from Fermented Foods: Production Approaches, Sources, and Potential Health Benefits. *Foods*, 13(21), 3369. <https://doi.org/10.3390/foods13213369>
- Rahayu, E. S., Cahyanto, M. N., Mariyatun, Sarwoko, M.-A., Haryono, P., Windiarti, L., Sutriyanto, J., Kandarina, I., Nurfiani, S., Zulaichah, E., & Utami, T. (2016). Effects of consumption of fermented milk containing indigenous probiotic lactobacillus plantarum dad-13 on the fecal microbiota of healthy indonesian volunteers. *International Journal of Probiotics & Prebiotics*, 11(2), 91–99.
- Rahayu, E. S., Rusdan, I. H., Athennia, A., Kamil, R. Z., Pramesi, P. C., Marsono, Y., Utami, T., & Widada, J. (2019). Safety Assessment of Indigenous Probiotic Strain Lactobacillus plantarum Dad-13 Isolated from Dadih Using Sprague Dawley Rats as a Model. *American Journal of Pharmacology and Toxicology*, 14(1), 38–47. <https://doi.org/10.3844/ajptsp.2019.38.47>

- Rahayu, E. S., & Utami, T. (2019). *Probiotik dan Gut Microbiota: Serta Manfaatnya pada Kesehatan*. Kanisius.
- Rangel, A. H. do N., Bezerra, D. A. F. V. de A., Sales, D. C., Araújo, E. de O. M., Lucena, L. M. de, Porto, A. L. F., Vêras, Í. V. U. M., Lacerda, A. F., Ribeiro, C. V. D. M., & Anaya, K. (2023). An Overview of the Occurrence of Bioactive Peptides in Different Types of Cheeses. *Foods*, 12(23), Article 23. <https://doi.org/10.3390/foods12234261>
- Rolim, F. R. L., Freitas Neto, O. C., Oliveira, M. E. G., Oliveira, C. J. B., & Queiroga, R. C. R. E. (2020). Cheeses as food matrixes for probiotics: In vitro and in vivo tests. *Trends in Food Science & Technology*, 100, 138–154. <https://doi.org/10.1016/j.tifs.2020.04.008>
- Rose-John, S., Winthrop, K., & Calabrese, L. (2017). The role of IL-6 in host defence against infections: Immunobiology and clinical implications. *Nature Reviews Rheumatology*, 13(7), 399–409. <https://doi.org/10.1038/nrrheum.2017.83>
- Sasaki, M., Oba, C., Nakamura, K., Takeo, H., Toya, H., & Furuichi, K. (2024). Milk-based culture of *Penicillium camemberti* and its component oleamide affect cognitive function in healthy elderly Japanese individuals: A multi-arm randomized, double-blind, placebo-controlled study. *Frontiers in Nutrition*, 11. <https://doi.org/10.3389/fnut.2024.1357920>
- Shiiddieqy, M. W. A. (2022). *KARAKTERISTIK KIMIA, FISIK, SENSORIS, DAN MIKROBIOLOGIS KEJU TOMME PROBIOTIK DENGAN KULTUR STARTER LOKAL Lactobacillus plantarum DAD-13 DAN Streptococcus thermophilus DAD-11* [Universitas Gadjah Mada]. <https://etd.repository.ugm.ac.id/penelitian/detail/207360>
- Suroto, D. A., Hasan, P. N., & Rahayu, E. S. (2021). Genomic insight of two indigenous probiotics *Lactobacillus plantarum* Dad-13 and *Lactobacillus plantarum* Mut-7 from different origins of Indonesian fermented foods. *Biodiversitas Journal of Biological Diversity*, 22(12). <https://doi.org/10.13057/biodiv/d221233>
- T R, M., Sembiring, L., Rahayu, E. S., Haedar, N., & Dwyana, Z. (2020). Survival of *Lactobacillus plantarum* dad 13 in probiotic cheese making. *IOP Conference Series: Earth and Environmental Science*, 575(1), 012020. <https://doi.org/10.1088/1755-1315/575/1/012020>
- Tadjine, D., Boudalia, S., Bousbia, A., Khelifa, R., Mebirouk Boudechiche, L., Tadjine, A., & Chemmam, M. (2020). Pasteurization effects on yield and physicochemical parameters of cheese in cow and goat milk. *Food Science and Technology*, 40(3), 580–587. <https://doi.org/10.1590/fst.13119>
- Tillib, S. V., Privezentseva, M. E., Ivanova, T. I., Vasilev, L. F., Efimov, G. A., Gursky, Y. G., Georgiev, G. P., Goldman, I. L., & Sadchikova, E. R. (2014).

- Single-domain antibody-based ligands for immunoaffinity separation of recombinant human lactoferrin from the goat lactoferrin of transgenic goat milk. *Journal of Chromatography B*, 949–950, 48–57. <https://doi.org/10.1016/j.jchromb.2013.12.034>
- Tilocca, B., Soggiu, A., Iavarone, F., Greco, V., Putignani, L., Ristori, M. V., Macari, G., Spina, A. A., Morittu, V. M., Ceniti, C., Piras, C., Bonizzi, L., Britti, D., Urbani, A., Figeys, D., & Roncada, P. (2022). The Functional Characteristics of Goat Cheese Microbiota from a One-Health Perspective. *International Journal of Molecular Sciences*, 23(22), 14131. <https://doi.org/10.3390/ijms232214131>
- Toledo, T. R., Dejana, N. N., Monnazzi, L. G. S., Kossuga, M. H., Berlinck, R. G. S., Sette, L. D., & Medeiros, A. I. (2014). Potent Anti-Inflammatory Activity of Pyrenocine A Isolated from the Marine-Derived Fungus *Penicillium paxilli* Ma(G)K. *Mediators of Inflammation*, 2014, 1–11. <https://doi.org/10.1155/2014/767061>
- Trisnawita, Y., Silalahi, J., & Sinaga, S. M. (2018). THE EFFECT OF STORAGE CONDITION ON VIABILITY OF LACTIC ACID BACTERIA IN PROBIOTIC PRODUCT. *Asian Journal of Pharmaceutical and Clinical Research*, 11(13), 84. <https://doi.org/10.22159/ajpcr.2018.v11s1.26574>
- Wang, Y., Wu, J., Lv, M., Shao, Z., Hungwe, M., Wang, J., Bai, X., Xie, J., Wang, Y., & Geng, W. (2021). Metabolism Characteristics of Lactic Acid Bacteria and the Expanding Applications in Food Industry. *Frontiers in Bioengineering and Biotechnology*, 9. <https://www.frontiersin.org/articles/10.3389/fbioe.2021.612285>
- Zare, D., Aryaee, H., Mirdamadi, S., & Shirkhan, F. (2024). The Benefits and Applications of *Lactobacillus plantarum* in Food and Health: A Narrative Review. *Iranian Journal of Public Health*. <https://doi.org/10.18502/ijph.v53i10.16698>
- Zhong, R., Miao, L., Zhang, H., Tan, L., Zhao, Y., Tu, Y., Angel Prieto, M., Simal-Gandara, J., Chen, L., He, C., & Cao, H. (2022). Anti-inflammatory activity of flavonols via inhibiting MAPK and NF-κB signaling pathways in RAW264.7 macrophages. *Current Research in Food Science*, 5, 1176–1184. <https://doi.org/10.1016/j.crfs.2022.07.007>