



DAFTAR PUSTAKA

- [BPOM] Badan Pengawas Obat dan Makanan. 2012. Pedoman Kriteria Cemaran Pada Pangan Siap Saji dan Pangan Industri Rumah Tangga. Direktorat Standardisasi Produk Pangan, Jakarta.
- [BSN] Badan Standardisasi Nasional. 2015. SNI 01 2332.3-2015 Tentang Cara Pengujian Bakteri TPC. Badan Standardisasi Nasional, Jakarta.
- [FAO] *Food and Agriculture*. 1995. *Quality and Quality in Fresh Fish*. <http://www.fao.org/3/v7180e/v7180e0a.htm> . Diakses 25 April 2021.
- [FAO] *Food and Agriculture*. 2012. *Public Health Risks of Histamine and other Biogenic Amines from Fish and Fishery Products (Meeting Report)*. *FAO Headquarters*, Roma.
- [FDA] *Food and Drug Administration*. 2015. *Import Alert 16-105: Detention Without Physical Examination of Seafood and Seafood Products from Specific Manufacturers/Shippers Due to Decomposition and/or Histamines*. https://www.accessdata.fda.gov/cms_ia/importalert_14.html . Diakses 31 Oktober 2019.
- [FDA] *Food and Drug Administration*. 2019. *Import Alert 16-105: Detention Without Physical Examination of Seafood and Seafood Products from Specific Manufacturers/Shippers Due to Decomposition and/or Histamines*. https://www.accessdata.fda.gov/cms_ia/importalert_14.html . Diakses 31 Oktober 2019.
- [FSAIE] *Food Safety Authority of Ireland*. 2019. *Histamine in Fish and Fishery Products*. https://www.fsai.ie/faq/histamine_fish.html . Diakses 23 Februari 2021.
- [LAMC] *Los Angeles Mission College*. 2020. *Chapter 6: Microbial Growth*. <https://www.lamission.edu/lifesciences/lecturenote/mic20/Chap06Growth.pdf> . Diakses 09 April 2020.
- [WHO] *World Health Organizations*. 2020. *Histamine and Others Biogenic Amines*. <https://www.who.int/foodsafety/histamine/en/> . Diakses 23 Februari 2020.
- [WOC] *World of Chemicals*. 2020. *Everything You Need to Know About Histamine*. <https://www.worldofchemicals.com/539/chemistry-articles/everything-you-need-to-know-about-histamine.html> . Diakses 10 November 2020.
- Abe, H., R.W. Brill, dan P.W. Hochachk. 1986. Metabolism of L-histidin, carnosine, and anserine in skipjack tuna. *Physiol Zool* (4): 439-450.
- Alasalvar C., S. Fereidoon, M. Kazuo, dan W. Udaya. 2011. Handbook of seafood quality, safety and health applications. Blackwell Publishing Ltd., New Jersey.
- Aliouche, H. 2018. *Histidin Metabolism*. <https://www.news-medical.net/life-sciences/Histidin-Metabolism.aspx> . Diakses 10 November 2020.



- Andersen, H. H., J. Elberling dan L. Arendt-Nielsen. 2015. Human surrogate models of histaminergic and non-histaminergic itch. *Acta derm venereol* 95: 771–777.
- Anonim. 2019. *Skipjack Tuna*. <https://www.takemefishing.org/fish-species/skipjack-tuna/>. Diakses 31 Oktober 2019.
- Aryal, S.C. 2017. *About Morganella Species*. Annapurna Neurological Institute and Allied Sciences, Kathmandu.
- Atmadjaja, J.S. 1994. Isolasi dan identifikasi *Morganella morganii* JD-37 sebagai bakteri pembentuk histamin dari tongkol (*Euthynnus* sp). Universitas Gadjah Mada. Tesis.
- Bajc, Z., dan K.S. Gačnik. 2009. Densitometric TLC analysis of histamine in fish and fishery products. *Journal of planar chromatography* 22 (1): 15–17.
- Balitbang KP. 1983. Prosiding Rakernas Perikanan Tuna Cakalang. Badan Penelitian dan Pengembangan Kementerian Perikanan, Jakarta.
- Baranyi, J. dan T.A. Roberts. 1994. A dynamic approach to predicting bacterial growth in food. *Int. J. Food microbiol.* 23: 277-294.
- Behling, A. R. dan S.L. Taylor. 1982. Bacterial histamine production as a function of temperature and time of incubation. *Journal of food science* 47: 1311 - 1314.
- Brenner, B.M., C. Magee, dan M.R. Clarkson. 2011. *Pocket companion to brenner and rector's the kidney. Edisi ke-8. Saunders elsevier*, Philadelphia.
- Butler, R., S. Conway, R. Delfs, N. Greenberg, I. Hanifa, S. J. Green, P. Mous, dan L. Pet. 2018. Trends in marine resources and fisheries management in Indonesia. California Environmental Associates, San Fransisco.
- Chaplin, M.F. dan C. Bucke. 1990. *Enzyme Technology. Cambridge University Press*, Cambridge.
- Chen, C.M., C.I. Wei, J.A. Koburger, dan M.R. Marshall. 1989. Comparison of four agar media for detection of histamine-producing bacteria in tuna. *Journal of food protection* 52 (2): 808-813.
- Desai, S.D. 2010. *Amino Acids Degradation and Synthesis. Biochemistry and Molecular Biology Department*. Louisiana State University: Health Sciences Center New Orleans, New Orleans.
- Dissaraphong, S., S. Benyakul, W. Vissessanguan dan H. Kishimura. 2006. The influence of storage conditions of tuna viscera before fermentation on the chemical, physical, and microbiological changes in fish sauce during fermentation. *Bioresource technology* 97 (16): 2032 – 2040.
- Dityanawarman, A. 2018. Analisis hubungan suhu dengan parameter pertumbuhan bakteri penghasil histamin pada ikan cakalang. Universitas Gadjah Mada. Tesis.



- Ekawati, Y. 2014. Perubahan komposisi asam amino dan mineral ikan cakalang (*Katsuwonus pelamis*) akibat proses penggorengan. Institut Pertanian Bogor. Skripsi.
- Emborg, J dan P. Dalgaard. 2008. Growth, inactivation and histamin formation of *morganella psychrotolerans* and *morganella morganii* — development and evaluation of predictive models. *Intern j of food microbiology* 128: 234–243.
- Emborg, J. 2006. *Morganella psychrotolerans* sp. A histamine-producing bacterium isolated from various seafoods. *Int j syst evol microbiol* 56: 2473–2479.
- Ferrario, C., B. Francesca, R. Blanca de la, M. Rosario, R. Giovanni, dan M. Grazia. 2014. Fortina sequencing, characterization, and gene expression analysis of the histidine decarboxylase gene cluster of *morganella morganii*. *Curr microbiol* 68: 404–411.
- Fulton, M. 1943. The identity of *Bacterium columbensis* Castellani. *J Bacteriol.* 46: 79- 82.
- Galland, G., A. Rogers, dan A. Nickson. 2016. *Netting Billions: A Global Valuation Of Tuna. The Pew Charitable Trust, Philadelphia.*
- Hirasawa, N. 2019. Expression of histidine decarboxylase and its roles in inflammation. *International journal of molecular sciences* 20 (2): 376 – 389.
- Jose, H. 2012. *Morganella morganii. Truman State University, Missouri.*
- Kanki, M., T. Yoda, T. Tsukamoto, dan E. Baba. 2007. Histidine decarboxylases and their role in accumulation of histamine in tuna and dried saury. *Applied and environmental microbiology* 73 (5): 1467-1473.
- Keer, M., L. Paul, A. Sylvia dan R. Carl. 2002. *Effect of storage condition on histamin formation in fresh and canned tuna. Comissioned by Food Safety Unit, Victoria.*
- Kim S.H., B. Ben-Gigirey, J. Barros-Velazquez, R.J. Price, dan H. An. 2000. Histamine and biogenic amine production by *morganella morganii* isolated from temperature abused albacore. *J Food Prot* 63:244-251.
- Kim, S.H., R.J. Price, M.T. Morrissey, K.G. Field, C.I. Wei dan H. An. 2002. Histamine production by *morganella morganii* in mackerel, albacore, mahi-mahi, and salmon at various storage temperatures. *J food sci* 67(4):1522–8.
- Kimura, B., H. Takahashi, S. Hokimoto, Y. Tanaka, dan T. Fujii. 2009. Induction of the histidine decarboxylase genes of *photobacterium damsela subsp. Damsela* (formally *p. Histaminum*) at low ph. *Journal of applied microbiology*, 107 (2): 485-497.
- Koch, AL. 1970. Turbidity measurements of bacterial cultures in some available commercial instruments. *Anal biochem* 38: 252-259.
- Koohdar, V.A., V. Razavilar, A.A. Motalebi, F. Mosakhani, dan T. Valinassab. 2011. Isolation and identification of histamine-forming bacteria in frozen skipjack tuna (*Katsuwonus pelamis*). *Iranian journal of fisheries sciences*, 10 (4): 678-688.



- Koohdar, V., dan B. Shoaibi-Omrani. 2016. Histidine decarboxylase-producing bacteria and histamine content of gill muscles from longtail tuna fish (*Thunnus tonggol*) in oman sea. *Philippine journal of veterinary medicine*, 53 (2): 139 -144.
- Kurihara, K., Y. Wagatsuma, T. Fujii, dan M. Okuzumi. 1993. Effect of reaction conditions on l-histidine decarboxylation activity of halophilic histamine-producing bacteria. *Nippon Suisan Gakkaishi* 59: 1745–1748.
- Kusano, E., P. Nipon, C. Phunjasit, P. Kamphol, T.B. Lam, H.T. Cuong, T.M.H. Hop, L. Philippe, T.B. Nga, T.M.T. Phuong, S. Chubashini dan Suadi. 2018. *Food Value Chain In ASEAN: Case Studies Focusing on Local Producers. Economic Research Institute for ASEAN and East Asia Project*, Jakarta.
- Lehane, L., dan J. Olley. 2000. Review: histamine fish poisoning revisited. *International journal of food microbiology* 58, 1–37.
- Liao, S.M., Q.S. Du, J.Z. Meng, Z.W. Pang dan R.B. Huang. 2013. The multiple roles of histidine in protein interactions. *Chemistry central journal*, 7(1), 44.
- Linnaeus, C. 1758. *Systema naturæ per regna tria naturæ, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis*. Edisi ke-10. Laurentius Salvius, Stockholm.
- Madigan, M.T. dan J. M. Martinko. 2006. *Brock Biology of Microorganisms*. Edisi ke-11. Prentice Hall, Upper Saddle River.
- Mahaliyana, A.S., B.K.K.K. Jinadasa, N.P.P. Liyanage, G.D.T.M. Jayasinghe dan S.C. Jayamanne. 2015. Nutritional composition of skipjack tuna (*Katsuwonus pelamis*) caught from the oceanic waters around sri lanka. *American journal of food and nutrition*, 2015, Vol. 3, No. 4, 106-111.
- Mangunwardoyo, W., R.A. Sophia dan E.S. Heruwati. 2007. Seleksi dan pengujian aktivitas enzim *L-Histidine decarboxylase* dari bakteri pembentuk histamin. *Makara Sains* 10(2): 104-109.
- Manos, J. and B. Robert. 2006. *The Genera Proteus, Providencia, and Morganella. Prokaryotes* 6: 245-269.
- Margareta, G. 2020. Pertumbuhan dan produksi histamin oleh *Citrobacter freundii* CK01 pada berbagai suhu. Universitas Gadjah Mada. Skripsi.
- McKellar, R dan X. Lu. 2004. *Modeling microbial responses in food. CRC Press*, London.
- McLauchin, J., C.L. Little, K.A. Grant dan V. Mithani. 2005. Scombrotoxin fish poisoning. *Public health* 28: 61- 62.
- Molenaar, D., J.S. Bosscher, B.T. Brink, A.J. Driessen dan W.N. Konings. 1993. Generation of a proton motive force by histidine decarboxylation and electrogenic histidine/histamine antiport in *Lactobacillus buchneri*. *J. Bacteriol.* Vol 175 (10):2864-2870.



- Moshtaq, T.A. dan M.H. Quine. 2016. *Morphology and Classification of Bacteria*. University of Al-Qadisiyah, Al Diwaniyah.
- Mulja, M. dan Suharman. 1995. Analisis Instrumental. Airlangga University Press, Surabaya.
- Muus, B.J. dan J.G. Nielsen. 1999. *Sea fish. Scandinavian fishing year book*, Denmark.
- Nelson, D.L. dan M.M. Cox. 2008. *Lehninger Principles of Biochemistry*. Edisi ke-5. W.H. Freeman and Company, New York.
- Ngili, Y. 2013. Protein & Enzim. Rekayasa Sains, Bandung.
- Nieto-Alamilla, G., R. Márquez-Gómez, A. García-Gálvez, G. Morales-Figueroa, dan J. Arias-montaño. 2016. Minireview—a latin american perspective on g protein-coupled receptors: the histamine h3 receptor: structure, pharmacology, and function *mol pharmacol* 90:649–673.
- Nurjannah, I. 2019. Pengaruh suhu terhadap pertumbuhan dan pembentukan histaminoleh bakteri *Morganella morganii* TK07. Universitas Gadjah Mada. Skripsi.
- Nutrient Data. 2018. *Fish, tuna, fresh, skipjack, raw Nutrition Facts & Calories*. <https://nutritiondata.self.com/facts/finfish-and-shellfish-products/4147/2> . Diakses 04 Januari 2020.
- Omura, Y., R. J. Price, dan H. S. Olcott. 1978. *Histamine-forming bacteria isolated from spoiled skipjack tuna and jack mackerel*. *J. Food Sci.* 43:1779–1781.
- Popovic, N. dan J. Sherma. 2014. Comparative study of the quantification of thin layer chromatograms of a model dye using three types of commercial densitometers and image analysis with imagej. *Trend in chromatography*, vol.9.
- Purwaningsih, S., J. Santoso, dan R. Garwan. 2013. Perubahan fisko-kimiawi, mikrobiologi dan histamin bakasang ikan cakalang selama fermentasi dan penyimpanan. *Jurnal teknologi dan industri pangan* 24(2): 168-177.
- Stahl, E. 1969. *Thin Layer Chromatography: A Laboratory Handbook*. Edisi ke-2. Springer, New York.
- Stickler, D.J. 2014. Clinical complications of urinary catheters caused by crystalline biofilms: something needs to be done. *J intern med.* 276 (2):120-9.
- Sutton, S. 2011. Measurement of microbial cells by optical density. *Journal of validation technology*: 46 – 49.
- Tahir, I., D. Nuryono, W. Pranowo, I. Haryadi, Kartini, dan S. Sudiono. 2014. Petunjuk Kimia Dasar II / Kimia Organik. Fakultas Matematika dan Ilmu Pengetahuan Alam. Universitas Gadjah Mada, Yogyakarta.



- Torido, Y., C. Ohshima., H. Takashi, S. Miya dan A. Iwakawa. 2014. Distribution of psychrophilic and mesophilic histamin-producing bacteria in retailed fish in japan. *Food control* 46: 338 – 342.
- Torres S, Roeckel M, Marti MC. 2002. Histamine formation by *morganella morganii* isolated from *Trachurus murphyi* (*chilean mackerel*). *Latin Am Appl Res* 32:209–214.
- Wahyuni, S. 2011. Histamin tuna (*Thunnus* sp) dan identifikasi bakteri pembentuknya pada kondisi suhu penyimpanan standar. Fakultas Perikanan dan Ilmu Kelautan. Institut Pertanian Bogor. Skripsi.
- Wang, D., Yamaki, S., Kawai, Y. dan K. Yamazaki. 2020. Histamine production behaviors of a psychrotolerant histamine-producer, *morganella psychrotolerans*, in various environmental conditions. *Current microbiology* 77 (3): 460-467.
- Wiranata, D.P. 2020. Isolasi dan identifikasi bakteri pembentuk histamin pada ikan tuna mata besar, cakalang, dan tongkol yang didaratkan di Pelabuhan Perikanan Pantai Sadeng, Gunungkidul. Universitas Gadjah Mada. Skripsi.
- Yu, H., D. Zhuang, X. Hu, S. Zhang, Z. H.E., M. Zeng, X. Fang, J. Chen dan X. Chen, 2018. Rapid determination of histamine in fish by thin-layer chromatography- image analysis method using diazotized visualization reagent prepared with p- nitroaniline. *Analytical methods* 10 (27): 3386-3392.