

DAFTAR PUSTAKA

- Almaas, H., Eriksen, E., Sekse, C., Comi, I., Flengsrud, R., Holm, H., Jensen, E., Jacobsen, M., Langsrud, T., and Vegarud, G. E., 2011, Antibacterial Peptides Derived From Caprine Whey Proteins, by Digestion with Human Gastrointestinal Juice, *Br. J. Nutr.*, 106, 896 – 905.
- Amoresano, A., Carpentieri, A., Giangrande, C., Palmese, A., Chiappetta, G., Marino, G., and Pucci, P., 2009, Technical Advances in Proteomics Mass Spectrometry: Identification of Post – Translational Modifications, *Clin. Chem. Lab. Med.*, 47(6), 647 – 665.
- Atef, N. M., Shanab, S. M., Negm, S. I., and Abbas, Y. A., 2019, Evaluation of Antimicrobial Activity of Some Plant Extracts Against Antibiotic Susceptible and Resistant Bacterial Strains Causing Wound Infection, *Bull. Natl. Res. Cen.*, 43(144), 1-11.
- Baird, T. T., 2017, *Reference Module in Life Sciences: Trypsin*, Elsevier, Amsterdam.
- Balaban, N., Collins, L.V., Cullor, J.S., Hume, E.B., Medina, A.E., Vieira, M.O., O’Callaghan, R., Rossitto, P.V., Shirliff, M.E., Serafim, S.L., Tarkowski, A., and Torres, J.V., 2000, Prevention of Diseases Caused by *Staphylococcus Aureus* Using The Peptide RIP, *Peptides*, 21(9), 1301-1311.
- Balouiri, M., Sadiki, M., and Koraichi, S., 2015, Methods for *In Vitro* Evaluating Antimicrobial Activity: A Review, *J. Pharm. Anal.*, 6, 71 – 79.
- Bao, Z. J., Zhao, Y., Wang, X. Y., and Chi, Y. J., 2017, Effects of Degree of Hydrolysis (DH) on The Functional Properties of Egg Yolk Hydrolysate with Alcalase, *J. Food Sci. Technol.*, 54(3), 669 – 678.
- Bockisch, M., 1998, *Fats and Oils Handbook*, Academic Press, Massachusetts.
- Browne, K., Chakraborty, S., Chen, R., Wollcox, M. D. P., Black, D. S. C., Walsh, W. R., and Kumar, N., 2020, New Era of Antibiotics: The Clinical Potential of Antimicrobial Peptides, *Int. J. Mol. Sci.*, 21, 7047, 1 – 23.
- Campbell, M.K., and Farrell, S.O., 2012, *Biochemistry*, Brooks/Cole, Belmont.
- Cartuche, L., Cruz, D., Ramirez, M. I., Bailon, N., and Malagon, O., Antibacterial and Cytotoxic Activity from The Extract and Fractions of a Marine Derived Bacterium from The *Streptomyces* Genus, *Pharm. Biol.*, 53(12), 1826 – 1830.
- Chambi, H. N. M., Lacerda, R. S., Makishi, G. L. A., Bittante, A. M. Q. B., Gomide, C. A., and Sobral, P. J. A., 2014, Protein Extracted from Castor Bean (*Ricinus Communis* L.) Cake in High pH Result in Films with Improved Physical Properties, *Ind. Crop. Prod.*, 61, 217 – 224.
- Charoenphun, N., Cheirslip, B., Sirinupong, N., and Youravong, W., 2013, Calcium – Binding Peptides Derived from Tilapia (*Oreochromis Niloticus*) Protein Hydrolysate, *Eur. Food Res. Technol.*, 236, 57 – 63.
- Coon, J. J., Syka, J. E. P., Shabanowitz, J., and Hunt, D. F., 2005, Tandem Mass Spectrometry for Peptide and Protein Sequence Analysis, *Biotechniques*, 38(4), 519 – 523.

- Coppock, R. W. And Dziwenka, M., 2015, *Handbook of Toxicology of Chemical Warfare Agents*, Academic Press, Massachusetts
- Correa, J. A. F., Evangelista, A. G., Nazareth, T. M., and Luciano, F. B., 2019, Fundamentals on The Molecular Mechanism of Action of Antimicrobial Peptides, *Materialia*, 8(2019), 1 – 12.
- Cottrell, J. S., 2011, Protein Identification Using MS/MS Data, *J. Prot.*, 74, 1842 – 1851.
- Cutrona, K.J., Kaufman, B.A., Figueroa, D.M., and Elmore, D.E., 2015, Role of Arginine and Lysine in The Antimicrobial Mechanism of Histone-Derived Antimicrobial Peptides, *FEBS Lett.*, 589(24), 3915 – 3920.
- Creppy, E., Lugnier, A. A. J., and Dirheimer, G., 1980, Isolation and Properties of Two Toxic Tryptic Peptides from Ricin, The Toxin of *Ricinus Communis* (Castor Bean) Seeds, *Toxicon*, 18 (5 – 6), 649 – 660.
- Danlami, J. M., Arsad, A., and Zaini, A. A., 2015, Solvent extraction of Castor Beans Oil: Experimental Optimization via Response Surface Methodology, *Procedings of the International Conference on Global Sustainability and Chemical Engineering*, 20 – 22 Agustus, Kuala Lumpur.
- Deng, L., Handler, D. C. L., Multari, D. H., and Haynes, P. A., 2021, Comparison of Protein and Peptide Fractionation Approaches in Protein Identification and Quatification from *Saccharomyces Cerevisiae*, *J. Chrom. B.*, 1162., 1 – 31.
- Deng, Y., Gruppen, H., and Wierenga, P. A., 2018, Comparison of Protein Hydrolysis Catalyzed with Bovine, Porcine And Human Trypsin, *J. Agric. Food Chem.*, 66, 4219 – 4232.
- Dijksteel, G. S., Ulrich, M. M. W., Middelkoop, E., and Boekema, B. K. H. L., 2021, Review: Lessons Learned from Clinical Trials using Antimicrobial Peptides (AMPs), *Front. Microbiol.*, 12:616979, 1 – 12.
- Doellinger, J., Schneider, A., Hoeller, M., and Lasch, P., 2019, Sample Preparation By Easy Extraction And Digestion (SPEED) – A Universal, Rapid, And Detergent-Free Protocol for Proteomics Based on Acid Extraction, *Mol. Cell. Proteom.*, 19(1), 209 – 222.
- Eppendorf, 2015, Factors Influencing OD₆₀₀ Measurements, *White Paper*, 27.
- Fajr, A., 2019, Hidrolisis Protein dari Niji Jarak Kepyar (*Ricinus communis* L.) dengan Enzim Tripsin USP dan Uji Aktivitas Antibakteri Peptida yang dihasilkan, *Skripsi*, Departemen Kimia FMIPA UGM, Yogyakarta.
- Farhana, M. N., Ling, T. H., Pei, L. Y., Suzila, M. S. N., 2019, Isolation of Antimicrobial Peptide from Food Protein Hydrolysates: An Overview, *Key Eng. Mater.*, 797, 168 – 176.
- Ferri, M., Graen-Heedfeld, J., Bretz, K., Guillon, F., Michelini, E., Calabretta, M. M., Lamborghini, M., Guarini, N., Roda, A., Kraft, A., and Tassoni, A., 2017, Peptide Fractions Obtained from Rice By-Products by Means of an Environment-Friendly Process Show *In Vitro* Health-Related Bioactivities, *PloS ONE*, 12(1), 1 – 14.
- Han, X., Aslanian, A., and Yates, J. R., 2008, Mass Spectrometry for Proteomics, *Curr. Opin. Chem. Biol.*, 12(5), 483 – 490.

- Hao, P., Ren, Y., Datta, A., Tam, J. P., and Sze, S. K., 2015, Evaluation of the Effect of Trypsin Digestion Buffers on Artificial Deamidation, *J. Proteome Res.*, 14(2), 1308 – 1314.
- Harris, F., Dennison, S. R., and Phoenix, D. A., 2009, Anionic Antimicrobial Peptides from Eukaryotic Organisms, *Curr. Protein Pept. Sci.*, 10, 585 – 606.
- Heissel, S., Frederiksen, S. J., Bunkerborg, J., and Hojrup, P., 2019, Enhanced Trypsin on a Budget: Stabilization, Purification and High – temperature Application of Inexpensive Commercial Trypsin for Proteomics Applications, *Plos One*, 14(6), 1 – 16.
- Hustoft, H. K., Malerod, H., Wilson, S. R., Reubsaet, L., Lundanes, E., and Greibrokk, T., 2012, *A Critical Review of Trypsin Digestion for LC – MS Based Proteomics*, InTech, Rijeka.
- Karas, M., Bahr, U., and Dulcks, T., 2000, Nano – Electrospray Ionization Mass Spectrometry Addressing Analytical Problems Beyond routine, *J. Anal. Chem.*, 366, 669 – 676.
- Kim, S. K., Hancock, D. K., Wang, L., Cole, K. D., Reddy, P. T., 2006, Methods to Characterize Ricin for The Development of Reference Materials, *J. Res. Natl. Inst. Stand. Technol.*, 111(4), 313 – 324.
- Kobayashi, K., 2011, *Encyclopedia of Astrobiology: Disulfide bond*, Springer, Berlin.
- Krochmal, B. K., and Wicher, R. D., 2021, The Minimum Inhibitory Concentration of Antibiotics Methods, Interpretation, Clinical Relevance, *Pathogens*, 10(165), 1 - 21.
- Kuete, V., 2014, *Toxicological Survey of African Medicinal Plants*, Elsevier.
- Kusmiyati, dan Agustini, N.W.S., 2007, Uji Aktivitas Senyawa Antibakteri dari Mikroalga *Porphyridium Cruentum*, *Biodiversitas*, 8(1), 48 – 53.
- Lam, M. P. Y., Lau, E., Liu, X., Li, J., and Chu, I. K., 2012, *Comprehensive Sampling and Sample Preparation: Sample preparation for Glycoproteins*, Academic Press, Massachusetts.
- Lee, C. H., 2017, A Simple Outline Of Methods for Protein Isolation and Purification, *Endocrinol. Metab.*, 32(1), 18 – 22.
- Lei, J., Sun, L., Huang, S., Zhu, C., Li, P., He, J., Mackey, V., Coy, D. H., and He, Q., 2019, The Antimicrobial Peptides and Their Potential Clinical Applications, *Am. J. Transl. Res.*, 11(7), 3919 – 3931.
- Li, X., Gao, Y., and Serpe, M. J., 2015, Reductant-Responsive Poly(*N*-Polypropylacrylamide) Microgels And Microgel-Based Optical Materials, *Can. J. Chem.*, 95(2015), 1 - 13.
- Machado, F. F., Coimbra, J. S. R., Rojas, E. E. G., Minim, L. A., Oliveira, F. C., and Sousa, R. D. C. S., 2007, Solubility and Density of Egg White Proteins: Effect of Ph and Saline Concentration, *LWT – Food Sci. Technol.*, 40(7), 1304 – 1307.
- Manadas, B., Mendes, V. M., and Dunn, M. J., 2010, Peptide Fractionation in Proteomics Approaches, *Expert. Rev. Proteomics*, 7(5), 655 – 663.
- Maurer, H. W., 2009, *Starch in The Paper Industry*, Academic Press, Massachusetts.

- Michalski, A., Damoc, E., Hauschild, J. P., Lange, O., Wieghaus, A., Makarov, A., Nagaraj, N., Cox, J., Mann, M., and Hornins, S., 2011, Mass Spectrometry – Based Proteomics Using Q Exactive, A High – Performance Bechtop Quadrupole Orbitrap Mass Spectrometer, *Mol. Cell. Proteomics*, 10(9), 1-11.
- Mohamed, M. F., Hammac, G. K., Guptill, L., and Seleem, M. N., 2014, Antibacterial Activity of Novel Cationic Peptides Against Clinical Isolates of Multi-Drug Resistant *Staphylococcus Pseudintermediu* from Infected Dogs, *PloS One*, 9,(12), 1 - 20.
- Muchtaromah, B., Safitri, E. S., Fitriasari, P. D., dan Istiwandhani, J., 2019, Antibacterial Activities of *Curcuma Mangga Val.* in Some Solvents to *Staphyococcus aureus* and *Escherichia coli*, *International Conference on Life Sciences and Technology (IcoLiST)*, 12 – 13 September, Malang.
- Mudhakir, D., and Harashima, H., 2009, Learning From The Vital Journey: How to Enter Cells and How to Overcome Intracellular Barriers to Reach The Nucleus, *The AAPS Journal*, 11(1), 65 – 76.
- Mulyadi, M., Wuryanti, Sarjono, P.R., 2017, Konsentrasi Hambatan Minimum (KHM) Kadar Sampel Alang – Alang (*Imperata Cylindrica*) dalam Etanol Melalui Metode Difusi Cakram, *Jurnal Kimia Sains dan Aplikasi*, 20(3), 130 – 135.
- Muller, T. and Winter, D., 2017, Systematic Evaluation Of Protein Reduction And Alkylation Revelas Massive Unspesific Side Effects by Iodine – Containing Reagents, *Mol. Cell. Proteom.*, 16(7), 1173 – 1187.
- Ngo, T. N., Nguyen, T. T., Bui, D. T., Hoang, N. T., and Nguyen, T. D., 2016, Effects of Ricin Extracted from Seeds of The Castor Bean (*Rinicus Communis*) on Cytotoxicity and Tumorigenesis of Melanoma Cells, *Biomed. Res. Ther.*, 3(5), 633 – 644.
- Pellegrini, A., Thomas, U., Bramaz, N., Hunziker, P., and Fellenberg, R. V., 1999, Isolation and Identification of Three Bactericidal Domains in The Bovine A-lactabumin Molecule, *Biochimica et Biophysica Acta (BBA) - General Subjects*, 1426(3), 439-448.
- Prasad, R. B. N., and Rao, B. V. S. K., 2017, *Chemical Derivatization of Castor Oil and Their Industrial Utilization in Fatty Acids*, AOCS Press, Massachusetts.
- Praptiwi, Wulansari, D., Fathoni, A., Harnoto, N., Novita, R., Alridsyah, and Agusta, A., 2020, Phoyochemical Screening, Antibacterial and Antioxidant Assessment of *Leuconotis Eugenifolia* Leaf Extract, *Nusantara Bioscience*, 12(1), 79 – 85.
- Poole, C.F., and Poole, S.K., 2012, *Comprehensive Sampling and Sample Preparation: Principles and Practice of Solid-Phase Extraction*, Academic Press, Massachusetts.
- Rajawat, J., and Jhingan, G., 2019, *Data Processing Handbook for Complex Biological Data Sources*, Academic Press, Massachussets.
- Rambouts, I., Lagrain, B., Brunnbauer, M., Delcour, J. A., and Koehler, P., 2013, Improved Identification of Wheat Gluten Proteins Through Alkylation of

- Cysteine Residues and Peptide-Based Mass Spectrometry, *Sci. Rep.*, 3, 2279, 1 - 11.
- Rebecchi, K. R., Go, E. P., Xu, L., Woodin, C. L., Mure, M., and Desaire, H., 2011, A General Protease Digestion Procedure for Optimal Protein Sequence Coverage and PTM Analysis of Recombinant Glycoproteins: Application to The Characterization of Hlox12 Glycosylation, *Anal. Chem.*, 83(22), 8484 – 8491.
- Rutherford, S. M., 2010, Methodology for Determining Degree of Hydrolysis of Proteins in Hydrolysates: A Review, *J. AOAC Int.*, 93(5), 1515 – 1522.
- Saidi, S., Deratani, A., Belleville, M. P., Amar, R., B., 2014, Ultrafiltration and Nanofiltration: Impact on Interesting Peptides Fraction and Nutritional Properties, *Food Res. Int.*, 65, 453 – 461.
- Salihu, B. J., Gana, A. K., and Apuyor, B. O., 2012, Castor Oil Plant (*Ricinus communis* L.): Botany, ecology and uses, *Int. J. Sci. Res.*, 3(5), 1333 – 1341.
- Schönbächler, M. And Fehr, M. A., 2017, *Basics of Ion Exchange Chromatography for Selected Geological Applications*, Elsevier, Amsterdam.
- Sigma – Aldrich, 2015, *SUPELCO: Solid Phase Extraction Products*, St. Louis.
- Sizar, O., and Unakal, C. G., 2021, *Gram-positive Bacteria*, Statpearls, Treasure Island.
- Suttapitugsakul, S., Xiao, H., Smeekens, J., and Wu, R., 2017, Evaluation and Optimization of Reduction and Alkylation Methods to Maximize Peptide Identification with MS-based Proteomics, *Mol Biosyst.*, 13(12), 2574 – 2582.
- Tapal, A. and Tiku, K., 2019, *Enzymes in Food Biotechnology: Production, Applications and Future prospects*, Academic Press, Massachusetts.
- Trauger, S. A., Webb, W., and Siuzdak, G., 2002, Peptide and Protein Analysis with Mass Spectrometry, *J. Spectrosc.*, 16, 15 – 28.
- Utami, W. M., 2019, Identifikasi Peptida Hasil Hidrolisis Protein dari Biji Tanaman Jarak Kepyar (*Ricinus Communis*) dengan Tripsin Teknis dan Uji Aktivitasnya Sebagai Antibakteri, *Skripsi*, Departemen Kimia FMIPA UGM, Yogyakarta.
- Wade, L., and Simek, J., 201, *Organic Chemistry*, Pearson, London.
- Zarai, Z., Kadri, A., Chobba, I. B., mansour, R. B., Bekir, A., Mejdoub, H., and Gharsallah, N., 2011, The *In-Vitro* Evaluation of Antibacterial, Antifungal and Cytotoxic Properties of *Marrubium vulgare* L., Essential Oil Grown in Tunisia, *Lipids Health Dis.*, 10(161), 35 – 39.
- Zhang, Y., Fonslow, B. R., Shan, B., Baek, M. C., Yates, J. R., 2013, Protein Analysis by Shotgun/bottom Up Proteomics, *Chem. Rev.*, 113(4), 2343 – 2394.