DAFTAR PUSTAKA

Anandan, S., Kumar, G.K.A., Ghosh, J., Ramachandra, K.S., 2005, Effect of different physical and chemical treatments on detoxification of ricin in castor cake, *Anim. Feed Sci. Technol*., 120, 159–168.

Au, K.Y., Wang, R.R., Wong, Y.T., Wong, K.B., Zheng, Y.T., Shaw, P.C., 2014, Engineering a switch-on peptide to ricin A chain for increasing its specificity towards HIV-infected cells, *Biochim. Biophys. Acta - Gen. Subj.,* 1840, 958–963.

Badr, M., 2012, The-ribosome-inactivating protein gelonin and parts thereof to be employed for potential treatment of cancer, *Disertasi*, Departemen Kimia Technischen Universitat Kaiserslautern, Kaiserslauter.

Bali, E.B., Açik, L., Akca, G., Sarper, M., Elçi, M.P., Avcu, F., Vural, M., 2014, Antimicrobial activity against periodontopathogenic bacteria, antioxidant and cytotoxic effects of various extracts from endemic Thermopsis turcica, *Asian Pac. J. Trop. Biomed,* 4, 505–514.

Balouiri, M., Sadiki, M., Ibnsouda, S.K., 2016, Methods for in vitro evaluating antimicrobial activity: A review, *J. Pharm. Anal*., 6, 71–79.

Bobály, B., Mikola, V., Sipkó, E., Márta, Z., Fekete, J., 2015, Recovery of proteins affected by mobile phase trifluoroacetic acid concentration in reversed-phase chromatography, *J. Chromatogr. Sci*., 53, 1078–1083.

Bocian, A., Slawek, S., Jaromin, M., Hus, K.K., Buczkowicz, J., Lysiak, D., Petrilla, V., Petrillova, M., Legath, J., 2020, Comparison of methods for measuring protein concentration in venom samples, *Animals,* 10, 448.

Boland, M.P. dan Separovic, F., 2006, Membrane interactions of antimicrobial peptides from Australian tree frogs, Biochim, *Biophys. Acta - Biomembr.,* 1758, 1178–1183.

Botelho, D., Wall, M.J., Vieira, D.B., Fitzsimmons, S., Liu, F., Doucette, A., 2010, Top-down and bottom-up proteomics of sds-containing solutions following mass-based separation, *J. Proteome Res.,* 9, 2863–2870.

Butré, C.I., Sforza, S., Gruppen, H., Wierenga, P.A., 2014, Introducing enzyme selectivity: A quantitative parameter to describe enzymatic protein hydrolysis, *Anal. Bioanal. Chem*., 406, 5827–5841.

Carvalho, R.H.R., Galvão, E.L., Barros, J.A.C., Conceição, M.M., Sousa, E.M.B.D., 2012, Extraction, fatty acid profile and antioxidant activity of sesame extract: (*Sesamum Indicum L.*), *Brazilian J. Chem. Eng*., 29, 409–420.

Chen, F.-E., Kaushik, A., Hsieh, K., Chang, E., Chen, L., Zhang, P., Wang, T.-H., 2021, Toward Decentralizing Antibiotic Susceptibility Testing via Ready-to-Use Microwell Array and Resazurin-Aided Colorimetric Readout, *Anal. Chem.,* 93, 1260–1265.

Choi, B.D., Wong, N.A.K., Auh, J.H., 2017, Defatting and sonication enhances protein extraction from edible insects, *Food Sci. Anim. Resour.,* 37, 955–961.

Choi, I., Cho, S.J., Chun, J.K., Moon, T.W., 2006, Extraction Yield of Soluble Protein and Microstructure of Soybean Affected by Microwave Heating, *J. Food Process. Preserv*., 30, 407–419.

Conlon, J.M., 2007, Purification of naturally occurring peptides by reversed-phase HPLC, *Nat. Protoc.,* 2, 191–197.

Corrêa, J.A.F., Evangelista, A.G., Nazareth, T. de M., Luciano, F.B., 2019, Fundamentals on the molecular mechanism of action of antimicrobial peptides, *Materialia,* 8, 100494.

Csepregi, R., Lemli, B., Kunsági-Máté, S., Szente, L., Kőszegi, T., Németi, B., Poór, M., 2018, Complex Formation of Resorufin and Resazurin with B-Cyclodextrins: Can Cyclodextrins Interfere with a Resazurin Cell Viability Assay?, *Molecules,* 23, 382–397.

Dasari, S.R. dan Goud, V. V., 2014, Effect of pre-treatment on solvents extraction and physico-chemical properties of castor seed oil, *J. Renew. Sustain. Ener.,* 6, 063108.

Doellinger, J., Schneider, A., Hoeller, M., Lasch, P., 2020, Sample preparation by easy extraction and digestion (SPEED) - A universal, rapid, and detergent-free protocol for proteomics based on acid extraction, *Mol. Cell. Proteomics,* 19, 209–222.

Dolashka, P., Moshtanska, V., Borisova, V., Dolashki, A., Stevanovic, S., Dimanov, T., Voelter, W., 2011, Antimicrobial proline-rich peptides from the hemolymph of marine snail *Rapana venosa*, *Peptides*, 32(7), 1477-1483

Egbuonu, A.C.C., Aguguesi, R.G., Samuel, R., Ojunkwu, O., Onyenmeri, F., Uzuegbu, U., 2015, Some physicochemical properties of the petroleum ether-extracted watermelon (Citrullus lanatus) seed oil, *Asian J. Sci. Res.,* 8, 519–525.

Elsässer, B. dan Goettig, P., 2021, Mechanisms of proteolytic enzymes and their inhibition in Qm/mm studies, *Int. J. Mol. Sci.,* 22, 1–26.

Elyass, M.E., Mahdi, A.A., Semeih, A.E., Eltaib, F.I., Attitalla, I.H., 2021, Exploratory investigation on the antibacterial effect of antimicrobial peptides of four mammalian plasmas, *Microb. Pathog.,* 156, 104839.

Farkas, A., Maróti, G., Kereszt, A., Kondorosi, É., 2017, Comparative analysis of the bacterial membrane disruption effect of two natural plant antimicrobial peptides, *Front. Microbiol*., 8, 51–62.

Fremout, W., 2013, Tryptic cleavage of proteinaceous paint: a high-performance protein binder analytical technique, *Disertasi*, Department of Analytical Chemistry Faculty of Science Universiteit Gent, Gent.

Geer Wallace, M.A. dan McCord, J.P., 2020, *High-resolution mass spectrometry : breathborne biomarkers and the human volatilome*, 2nd Ed., Elsevier, Newyork.

Ghahremani, M., Stigter, K.A., Plaxton, W., 2016, Extraction and characterization of extracellular proteins and their post-translational modifications from Arabidopsis thaliana suspension cell cultures and seedlings: A critical review, *Proteomes*, 4, 25.

Günerken, E., D'Hondt, E., Eppink, M.H.M., Garcia-Gonzalez, L., Elst, K., Wijffels, R.H., 2015, Cell disruption for microalgae biorefineries, *Biotechnol. Adv.*, 33, 243–260.

Ho, C.S., Lam, C.W.K., Chan, M.H.M., Cheung, R.C.K., Law, L.K., Lit, L.C.W., Ng, K.F., Suen, M.W.M., Tai, H.L., 2003. Electrospray ionisation mass spectrometry: principles and clinical applications, *Clin. Biochem. Rev.*, 24, 3–12.

Issaq, H.J., Chan, K.C., Blonder, J., Ye, X., Veenstra, T.D., 2009, Separation, detection and quantitation of peptides by liquid chromatography and capillary electrochromatography, *J. Chromatogr. A*, 1216, 1825–1837.

Jandera, P., Kučerová, Z., Urban, J., 2011, Retention times and bandwidths in reversed-phase gradient liquid chromatography of peptides and proteins, *J. Chromatogr. A.*, 1218, 8874–8889.

Jayant, M., Sahu, N.P., Deo, A.D., Garg, C.K., Yadav, R., Gupta, S., 2021, Effective valorization of agro-waste of castor oil extraction industry as feedstock for sustainable fish production, *Biofuel Bioprod. Biorefin.*, 15, 1126–1140.

Khalil, Z.G., Salim, A.A., Lacey, E., Blumenthal, A., Capon, R.J., 2014, Wollamides: Antimycobacterial cyclic hexapeptides from an Australian soil Streptomyces, *Org. Lett.*, 16, 5120–5123.

Kim, B.H., Choi, N.H., Ok, J.H., 2002, Comparison of reversed-phase liquid chromatographic methods for the separation of new quinolones, *J. Chromatogr. Sci.*, 40, 369–376.

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, 313–324.

Klančnik, A., Piskernik, S., Jeršek, B., Možina, S.S., 2010, Evaluation of diffusion and dilution methods to determine the antibacterial activity of plant extracts, *J. Microbiol. Methods*, 81, 121–126.

Klein, T., Eckhard, U., Dufour, A., Solis, N., Overall, C.M., 2018, Proteolytic Cleavage - Mechanisms, Function, and "omic" Approaches for a near-ubiquitous posttranslational modification, *Chem. Rev.*, 118, 1137–1168.

Kolsrud, H., Malerod, H., Ray, S., Reubsaet, L., Lundanes, E., Greibrokk, T., 2012, *A critical review of trypsin digestion for lc-ms based proteomics: Integrative Proteomics*, InTech., Sanghai.

Kostopoulou, O.N., Magoulas, G.E., Papadopoulos, G.E., Mouzaki, A., Dinos, G.P., Papaioannou, D., Kalpaxis, D.L., 2015, Synthesis and evaluation of chloramphenicol homodimers: Molecular target, antimicrobial activity, and toxicity against human cells, *PLoS One*, 10, 22.

Kowalska, K., Carr, D.B., dan Lipkowski, A.W., 2000, Direct antimicrobial properties of substance P, *Life Sci*., 71(7), 747-750.

Kumar, M., Tomar, M., Potkule, J., Verma, R., Punia, S., Mahapatra, A., Belwal, T., Dahuja, A., Joshi, S., Berwal, M.K., Satankar, V., Bhoite, A.G., Amarowicz, R., Kaur, C., Kennedy, J.F., 2021, Advances in the plant protein extraction: Mechanism and recommendations, *Food Hydrocoll*., 115, 106595.

Kuznetsova, K.G., Solovyeva, E.M., Kuzikov, A.V., Gorshkov, M.V., Moshkovskii, S.A., 2020, Modification of cysteine residues for mass spectrometry-based proteomic analysis: facts and artifacts, *Biomed. Khim.,* 66, 18–29.

Kuznetsova, K.G., Levitsky, L.I., Pyatnitskiy, M.A., Ilina, I.Y., Bubis, J.A., Solovyeva, E.M., Zgoda, V.G., Gorshkov, M. V., Moshkovskii, S.A., 2021, Cysteine alkylation methods in shotgun proteomics and their possible effects on methionine residues, *J. Proteomics*, 231, 104022.

Leni, G., Soetemans, L., Caligiani, A., Sforza, S., Bastiaens, L., 2020, Degree of hydrolysis affects the techno-functional properties of lesser mealworm protein hydrolysates, *Foods*, 9, 381–393.

Liu, Y.Q., Sun, Z.J., Wang, C., Li, S.J., Liu, Y.Z., 2004, Purification of a novel antibacterial short peptide in earthworm *Eisenia foetida*, *Acta Biochim. Biophys. Sin.*, 36, 297–302.

Liu, Y., Ma, X.Y., Liu, L.N., Xie, Y.P., Ke, Y.J., Cai, Z.J., Wu, G.J., 2019, Ultrasonic-assisted extraction and functional properties of wampee seed protein, *Food Sci. Technol*., 39, 324–331.

Luna-Vital, D.A., Mojica, L., González de Mejía, E., Mendoza, S., Loarca-Piña, G., 2015, Biological potential of protein hydrolysates and peptides from common bean (Phaseolus vulgaris L.): A review, *Food Res. Int.*, 76, 39–50.

Makishi, G.L.A., Lacerda, R.S., Mamani, H.N.C., Costa, P.A., Bittante, A.M.Q.B., Gomide, C.A., Sobral, P.J.A., 2014, Effect of alkaline agent and pH on the composition of freeze-dried proteins extracted from castor bean (*Ricinus communis L.*) cake, *Chem. Eng. Trans*., 37, 697–702.

Mant, C.T., Chen, Y., Yan, Z., Popa, T. V., Kovacs, J.M., Mills, J.B., Tripet, B.P., Hodges, R.S., 2007, HPLC Analysis and Purification of Peptide, *Methods Mol. Biol.,* 3–55.

Michalski, A., Damoc, E., Hauschild, J.P., Lange, O., Wieghaus, A., Makarov, A., Nagaraj, N., Cox, J., Mann, M., Horning, S., 2011, Mass spectrometry-based proteomics using Q exactive, a high-performance benchtop quadrupole orbitrap mass spectrometer, *Mol. Cell. Proteomics*, 10, 11.

Miranda, J.R., Passarinho, P.C., Gouveia, L., 2012, Pre-treatment optimization of Scenedesmus obliquus microalga for bioethanol production, *Bioresour. Technol*., 104, 342–348.

Morrison, L dan Zembower, T.R., 2020, Antimicrobial Resistance, *Gastrointest. Endosc. Clin. N. Am*., 30, 619–635.

Niles, A.L., Moravec, R.A., Eric Hesselberth, P., Scurria, M.A., Daily, W.J., Riss, T.L., 2007, A homogeneous assay to measure live and dead cells in the same sample by detecting different protease markers, *Anal. Biochem*., 366, 197–206.

Noble, J.E dan Bailey, M.J.A., 2009, Quantitation of protein, *Methods Enzymol*., 463, 73–95.

Olsen, J. V., Ong, S.E., Mann, M., 2004, Trypsin cleaves exclusively C-terminal to arginine and lysine residues, *Mol. Cell. Proteomics*, 3, 608–614.

Ottaviani, M.F., Leonardis, I., Cappiello, A., Cangiotti, M., Mazzeo, R., Trufelli, H., Palma, P., 2010, Structural modifications and adsorption capability of C18-silica/binary solvent interphases studied by EPR and RP-HPLC, *J. Colloid Interface Sci*., 352, 512–519.

Otvos, L., 2000, Antibacterial peptides isolated from insects, *J. Pept. Sci*., 6(10), 497-511.

Parathon, H., Kuntaman, K., Widiastoety, T.H., Muliawan, B.T., Karuniawati, A., Qibtiyah, M., Djanun, Z., Tawilah, J.F., Aditama, T., Thamlikitkul, V., Vong, S., 2017, Progress towards antimicrobial resistance containment and control in Indonesia, *BMJ*, 358, 31–35.

Pari, L., Suardi, A., Stefanoni, W., Latterini, F., Palmieri, N., 2020, Environmental and Economic Assessment of Castor Oil Supply Chain: A Case Study, *Sustainability*, 12, 6339.

Pérez, S.C., Perea-Flores, M. de J., Chanona-Pérez, J.J., Calderón-Domínguez, G., Garibay-Febles, V., Mendoza-Pérez, J.A., Hernández-Hernández, H.M., 2014, *Seeds as Functional Foods and Nutraceuticals: New Frontiers in Food Science*, Nova Science Publishers, Inc., New York.

Peters, T., 1996, *All about albumin: biochemistry, genetics, and medical application*, Academic Press, San Diego.

Raharjo, T.J., Utami, W.M., Fajr, A., Haryadi, W., Swasono, R.T., 2021, Antibacterial peptides from tryptic hydrolysate of Ricinus communis seed protein fractionated using cation exchange chromatography, *Indones. J. Pharm*., 32, 74–85.

Riss, T.L., Moravec, R.A., Niles, A.L., 2013, Cell viability assay: assay guidance manual, Eli Lilly & Company and the National Center for Advancing Translational Sciences, Montgomery County.

Rivas-Vela, C.I., Amaya-Llano, S.L., Castaño-Tostado, E., Castillo-Herrera, G.A., 2021, Protein hydrolysis by subcritical water: a new perspective on obtaining bioactive peptides, *Molecules,* 26, 6655.

Rozek, T., Wegener, K.L., Bowie, J.H., Olver, I.N., Carver, J.A., Wallace, J.C., Tyler, M.J., 2000, The antibiotic and anticancer active aurein peptides from the Australian Bell Frogs *Litoria aurea* and *Litoria raniformis*: The solution structure of aurein 1.2, *Eur. J. Biochem*., 267, 5330–5341.

Rued, B.E., Covington, B.C., Bushin, L.B., Szewczyk, G., Laczkovich, I., Seyedsayamdost, M.R., Federle, M.J., 2021, Quorum sensing in *Streptococcus* mutans regulates production of tryglysin, a novel ras-ripp antimicrobial compound, *MBio*, 12, 1–25.

Rutherfurd, S.M., 2010, Methodology for determining degree of hydrolysis of proteins in hydrolysates: A Review, *J. AOAC Int*., 93, 1515–1522.

Jean, K.D., Henderson, K.D., Chrom, C.L., Abiuso, L.E., Renn, L.M., Caputo, G.A., 2018, Effects of hydrophobic amino acid substitutions on antimicrobial peptide behavior, Probiotics Antimicrob. Proteins, 10, 408–419.

Salihu, B.Z., Gana, A.K., Apuyor, B.O., 2014, Castor Oil Plant (*Ricinus communis L.*): Botany , Ecology and Uses, *IJSR.,* 3, 1333–1341.

Saviano, A.M. dan Lourenço, F.R., 2019, Using image analysis to determine gentamicin potency by agar diffusion microbiological assay and its measurement uncertainty, *Measurement*, 146, 315–321.

Schellinger, A.P. dan Carr, P.W., 2006, Isocratic and gradient elution chromatography: A comparison in terms of speed, retention reproducibility and quantitation, *J. Chromatogr. A*, 1109, 253–266.

Scheltema, R.A., Hauschild, J.P., Lange, O., Hornburg, D., Denisov, E., Damoc, E., Kuehn, A., Makarov, A., Mann, M., 2014, The Q exactive HF, a benchtop mass spectrometer with a pre-filter, high-performance quadrupole and an ultra-high-field orbitrap analyzer, *Mol. Cell. Proteomics*, 13, 3698–3708.

Severino, L.S., 2012, Studies on yield components and seed physiology of castor (*Ricinus communis L.*), *Disertasi*, Plant and Soil Science Texas Tech University., Lubbock.

Siepen, J.A., Keevil, E.J., Knight, D., Hubbard, S.J., 2007, Prediction of Missed Cleavage Sites in Tryptic Peptides Aids Protein Identification in Proteomics, *J. Proteome Res*., 6, 399–408.

Song, W., Kong, X., Hua, Y., Chen, Yeming, Zhang, C., Chen, Yunxia, 2020, Identification of antibacterial peptides generated from enzymatic hydrolysis of cottonseed proteins, *LWT-Food Sci. Technol.*, 125, 109199.

Sornwatana, T., Roytrakul, S., Wetprasit, N., Ratanapo, S., 2013, Brucin, an antibacterial peptide derived from fruit protein of fructus bruceae, *Brucea javanica (L.) Merr*., *Lett. Appl. Microbiol*., 57, 129–136.

Sousa, R.B., Lima, K.S.C., Santos, C.G.M., França, T.C.C., Nepovimova, E., Kuca, K., Dornelas, M.R., Lima, A.L.S., 2019, A new method for extraction and analysis of ricin samples through MALDI-TOF-MS/MS, *Toxins,* 11, 201.

Sun, J., Xia, Y., Li, D., Du, Q., Liang, D., 2014, Relationship between peptide structure and antimicrobial activity as studied by de novo designed peptides, *Biochim. Biophys. Acta - Biomembr*., 1838, 2985–2993.

Teh, C.H., Nazni, W.A., Nurulhusna, A.H., Norazah, A., Lee, H.L., 2017, Determination of antibacterial activity and minimum inhibitory concentration of larval extract of fly via resazurin-based turbidometric assay, *BMC Microbiol*., 17, 36.

Teh, S.S., Bekhit, A.E.D., Carne, A., Birch, J., 2014, Effect of the defatting process, acid and alkali extraction on the physicochemical and functional properties of hemp, flax and canola seed cake protein isolates, *J. Food Meas. Charact*., 8, 92–104.

Tkaczewska, J., 2020, Peptides and protein hydrolysates as food preservatives and bioactive components of edible films and coatings - A review, *Trends Food Sci. Technol*., 106, 298–311.

Trung, N.N., Tho, N.T., Thuy Dung, B.T., My Nhung, H.T., Thang, N.D., 2016, Effects of ricin extracted from seeds of the castor bean (ricinuscommunis) on cytotoxicity and tumorigenesis of melanoma cells, *Biomed. Res. Ther*., 3, 23.

Tyagi, N., Tyagi, M., Pachauri, M., Ghosh, P.C., 2015, Potential therapeutic applications of plant toxin-ricin in cancer: challenges and advances, *Tumor Biol*., 36, 8239–8246.

Ulagesan, S., Kuppusamy, A., Kim, H.J., 2018, Antimicrobial and antioxidant activities of protein hydrolysate from terrestrial snail Cryptozona bistrialis, *J. Appl. Pharm. Sci*., 8, 12–19.

Ullah, H. dan Ali, S., 2017, *Antibacterial agents*., InTech, Sanghai.

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 Universitas Gadjah Mada, Yogyakarta.

Vandermarliere, E., Mueller, M., Martens, L., 2013, Getting intimate with trypsin, the leading protease in proteomics, *Mass Spectrom. Rev*., 32, 453–465.

Wang, X. dan Carr, P.W., 2007, An unexpected observation concerning the effect of anionic additives on the retention behavior of basic drugs and peptides in reversed-phase liquid chromatography, *J. Chromatogr. A*, 1154, 165–173.

Worbs, S., Köhler, K., Pauly, D., Avondet, M.A., Schaer, M., Dorner, M.B., Dorner, B.G., 2011, Ricinus communis intoxications in human and veterinary medicine-a summary of real cases, *Toxins,* 3, 1332–1372.

Wu, X., Wang, Z., Li, X., Fan, Y., He, G., Wan, Y., Yu, C., Tang, J., Li, M., Zhang, X., Zhang, H., Xiang, R., Pan, Y., Liu, Y., Lu, L., Yang, L., 2014, In vitro and in vivo activities of antimicrobial peptides developed using an amino acid-based activity prediction method, *Antimicrob. Agents Chemother.*, 58, 5342–5349.

Xiao, J., Zhang, H., Niu, L., Wang, X., 2011, Efficient screening of a novel antimicrobial peptide from jatropha curcas by cell membrane affinity chromatography, *J. Agric. Food Chem*., 59, 1145–1151.

Xu, Y., Li, Y., Bao, T., Zheng, X., Chen, W., Wang, J., 2017, A recyclable protein resource derived from cauliflower by-products: Potential biological activities of protein hydrolysates, *Food Chem*. 221, 114–122.

Yang, H., Xue, Y., Liu, J., Song, S., Zhang, L., Song, Q., Tian, L., He, X., He, S., Zhu, H., 2019, Hydrolysis process optimization and functional characterization of yak skin gelatin hydrolysates, *J. Chem*., 2019, 1–11.

Yang, Y., Boysen, R.I., Chowdhury, J., Alam, A., Hearn, M.T.W., 2015, Analysis of peptides and protein digests by reversed phase high performance liquid chromatography–electrospray ionisation mass spectrometry using neutral pH elution conditions, *Anal. Chim. Acta*, 872, 84–94.