

## DAFTAR PUSTAKA

- Andrew, S.M., J. A. Titus., & L. Zumstein., 2002. Dialysis and concentration of protein solutions. *Current protocols in toxicology*.10(1).
- Anthis, N. J., & G. M. Clore, 2013. Sequence-specific determination of protein and peptide concentrations by absorbance at 205 nm. *Protein Science* 22(6) : 851–858.
- Bärenstrauch., M. 2018. Characterization of oxylipin signaling in the chemical interaction between the endophyte *Paraconiothyrium variable* and the phytopathogen *Fusarium oxysporum*. Museum National D’histoire Naturelle. Thesis.
- Berrow, N.S., K. Büsow., B. Coutard., J. Diprose., M. Ekberg., G. E. Folkers., N. Lévy., V. Lieu., R. J. Owens., Y. Peleg, & C. Pinaglia., 2006. Recombinant protein expression and solubility screening in *Escherichia coli*: a comparative study. *Acta Crystallographica Section D: Biological Crystallography* 62(10) : 1218-1226.
- Boshtam, M., H. K. Shahreza., S. Feizollahzadeh., I. Rahimmanesh, & S. Asgary., 2018. Expression and purification of biologically active recombinant rabbit monocyte chemoattractant protein1 in *Escherichia coli*. *FEMS Microbiology Letters* 365(9).
- Bhatwa, A., W. Wang., Y. I. Hassan., N. Abraham., X. Z. Li, & T. Zhou., 2021. Challenges associated with the formation of recombinant protein inclusion bodies in *Escherichia coli* and strategies to address them for industrial applications. *Frontiers in Bioengineering and Biotechnology* 9 : 630551.
- Choi, T.J. & TT. Geletu., 2018. High level expression and purification of recombinant flounder growth hormone in *E. coli*. *Journal of Genetic Engineering and Biotechnology* 16(2) : 347-355.
- Cummins, P.M., K.D. Rochfort, & B.F. O’Connor, 2017. Ion-exchange chromatography: basic principles and application. In *Protein chromatography: Methods and Protocols* : 209-223.
- Deeva, A.A., E.A. Temlyakova, A.A. Sorokin, E.V. Nemtseva, & V.A. Kratasyuk, 2016. Structural distinctions of fast and slow bacterial luciferases revealed by phylogenetic analysis. *Bioinformatics* 32(20) : 3053-3057.
- Deng, Y., Q. Zhou., Y. Wu., X. Chen, & F. Zhong., 2022. Properties and Mechanisms of Flavin-Dependent Monooxygenases and Their Applications in Natural Product Synthesis. *International Journal of Molecular Sciences* 23(5) : 2622.



- Du, F., Y.Q. Liu., Y.S. Xu., Z.J. Li., Y.Z. Wang., Z.X. Zhang, & X.M. Sun., 2021. Regulating the T7 RNA polymerase expression in E. coli BL21 (DE3) to provide more host options for recombinant protein production. *Microbial Cell Factories*.20(1):1-10.
- Duong-Ly,K.C., & S.B.Gabelli. 2014. Using Ion Exchange Chromatography to Purify a Recombinant Expressed Protein. In: J.Lorsch (Ed.) *Methods in Enzymology*. Academic Press, Netherlands, p: 95-103
- Greenfield, N. J. (2007). Using circular dichroism spectra to estimate protein secondary structure. *Nature Protocols* 1(6) : 2876–2890.
- Huijbers, M.M., S., Montersino., A. H. Westphal., D. Tischler, & W. J. van Berkel., 2014. Flavin dependent monooxygenases. *Archives of Biochemistry and Biophysics* 544 : 2-17.
- Isupov, M.N., E. Schröder., R. P. Gibson., J. Beecher., G. Donadio., V. Saneei., S. A. Dcunha, E. J. McGhie., C. Sayer., C. F. Davenport, & P. C. Lau., 2015. The oxygenating constituent of 3, 6-diketocamphane monooxygenase from the CAM plasmid of *Pseudomonas putida*: the first crystal structure of a type II Baeyer Villiger monooxygenase. *Acta Crystallographica Section D: Biological Crystallography* 71(11):2344-2353.
- Ji, X., J. Tu., Y. Song., C. Zhang., L. Wang., Q. Li, & J. Ju., 2020. A luciferase-like monooxygenase and flavin reductase pair AbmE2/AbmZ catalyzes baeyer–villiger oxidation in neo abyssomicin biosynthesis. *ACS Catalysis* 10(4) : 2591-2595.
- Lancaster, C.R.D., 2004. Respiratory chain complex II and succinate: quinone oxidoreductases. In *Encyclopedia of Biological Chemistry* : 681-687.
- Larentis, A.L., J.F.MQ. Nicolau, G.D.S. Esteves, D.T. Vareschini, F.V.R de Almeida, M.G. dos Reis., R. Galler, & M.A. Medeiros., 2014. Evaluation of pre-induction temperature, cell growth at induction and IPTG concentration on the expression of a leptospiral protein in E. coli using shaking flasks and microbioreactor. *BMC Research Notes*. 7(1) : 1-13.
- Liu, S., Z.Li, B. Yu, S.Wang, Y. Shen, & H. Cong, 2020. Recent advances on protein separation and purification methods. *Advances in Colloid and Interface Science* 284 : 102254.

- Liu, P.-F., L. V. Avramova., & C. Park, 2009. Revisiting absorbance at 230nm as a protein unfolding probe. *Analytical Biochemistry* 389(2) : 165–170.
- Łojewska, E., T. Kowalczyk, S. Olejniczak, & T. Sakowicz, 2016. Extraction and purification methods in downstream processing of plant-based recombinant proteins. *Protein Expression and Purification* 120 : 110-117.
- Martin, C., C. Binda., M. W. Fraaije, and A., Mattevi., 2020. The multipurpose family of flavoprotein oxidases. In: Chaiken, P & F. Tamanoi (*Eds.*) *The Enzymes*. Academic Press,US. p: 63-86.
- McCaslin, T.G., C. V. Pagba., S. H. Chi., H. J. Hwang., J. C. Gumbart., J. W., Perry., C. Olivieri., F. Porcelli., G. Veglia., Z. Guo, & M. McDaniel., 2019. Structure and Function of Tryptophan–Tyrosine Dyads in Biomimetic  $\beta$  Hairpins. *The Journal of Physical Chemistry B* 123(13) :2780-2791.
- Maier, S., T. Heitzler., K. Asmus., E. Brötz., U. Hardter., K. Hesselbach., T. Paululat, & A. Bechthold., 2015. Functional Characterization of Different ORFs Including Luciferase-Like Monooxygenase Genes from the Mensacarcin Gene Cluster. *ChemBioChem* 16(8) : 1175-1182.
- Maier, S., T. Pflüger., S. Loesgen., K. Asmus., E. Brötz., T. Paululat., A. Zeeck., S. Andrade,& A. Bechthold., 2014. Insights into the bioactivity of mensacarcin and epoxide formation by MsnO8. *ChemBioChem* 15(5) : 749-756.
- Mascotti, M.L., M. J. Ayub., N. Furnham., J. M. Thornton, & R. A. Laskowski., 2016. Chopping and changing: the evolution of the flavin-dependent monooxygenases. *Journal of molecular biology* 428(15) : 3131-3146.
- Minjun, W., W. Zhang, & W. Nan., 2022. Covalent flavoproteins: types, occurrence, biogenesis and catalytic mechanisms. *Chinese Journal of Natural Medicines*. 20(10):749-760.
- Nelson, D. L., & M.M. Cox. 2008. *Lehninger Principles of Biochemistry*. W.H. Freeman and Company. New York.
- Nemtseva, E.V., D.V. Gulnov., M. A. Gerasimova., L.A. Sukovatyi, L.P. Burakova., N.E. Karuzina., B.S. Melnik. & V.A. Kratasyuk., 2021. Bacterial luciferases from *Vibrio harveyi* and *Photobacterium leiognathi* demonstrate different conformational stability as detected by time-resolved fluorescence spectroscopy. *International Journal of Molecular Sciences* 22(19):10449.

- O'Brien, E.P., R. I. Dima., B. Brooks, & D. Thirumalai., 2007. Interactions between hydrophobic and ionic solutes in aqueous guanidinium chloride and urea solutions: lessons for protein denaturation mechanism. *Journal of the American Chemical Society* 129(23) : 7346-7353.
- Paul, C.E., D. Eggerichs., A. H. Westphal., D. Tischler, & W. J. van Berkel., 2021. Flavoprotein monooxygenases: Versatile biocatalysts. *Biotechnology Advances* 51: 107712.
- Pignataro, M.F., M.G. Herrera, & V.I. Doderio., 2020. Evaluation of peptide/protein self-assembly and aggregation by spectroscopic methods. *Molecules*. 25(20) : 4854
- Priyanka, B.S., N. K. Rastogi., K.S.M.S. Raghavarao., & M.S. Thakur, M.S., 2013. Optimization of extraction of luciferase from fireflies (*Photinus pyralis*) using aqueous two-phase extraction. *Separation and Purification Technology* 118:40-48.
- Putri., H.K. 2021. Kloning dan Ekspresi Gen Open Reading Frame Luciferase-like enzyme Tipe 1 dari Bakteri *Priestia megaterium* PSA14. Fakultas Pertanian Universitas Gadjah Mada. Skripsi.
- Putro, E.W., D. Nurdiani, N. Utami, & W. Kusharyoto, 2021, May. Capture and intermediate purification of human insulin precursor from *Pichia pastoris* culture using cation exchange chromatography. In *IOP Conference Series: Earth and Environmental Science*. IOP Publishing 762 : 012028
- Qasim, M. & M. Taha., 2013. Investigation of the mechanism of protein denaturation by guanidine hydrochloride-induced dissociation of inhibitor-protease complexes. *Protein and peptide letters* 20(2) : 187-191.
- Reddy, M.V. & A. Steinbüchel., 2022. Evaluation of the function of a luciferase-like monooxygenase homologue in 4, 4'-dithiodibutyric acid catabolism in *Rhodococcus erythropolis* MI2. *Systems Microbiology and Biomanufacturing*., 2(3) : 523-532.
- Robinson, R.L., A. E. Neely., W. Mojadedi., K. N. Threatt., N. Y. Davis, & M. H. Weiland., 2017. Using an FPLC to promote active learning of the principles of protein structure and purification. *Biochemistry and Molecular Biology Education* 45(1) : 60-68.
- Smith, D.M., 2017. Protein separation and characterization procedures. *Food Analysis* 431-453.



- Sørensen, H.P. & K.K. Mortensen., 2005. Soluble expression of recombinant proteins in the cytoplasm of *Escherichia coli*. *Microbial Cell Factories* 4 : 1-8.
- Stephens, A.D., D. Matak-Vinkovic, A. Fernandez-Villegas, and G.S. Kaminski Schierle, 2020. Purification of recombinant  $\alpha$ -Synuclein: a comparison of commonly used protocols. *Biochemistry* 59(48) : 4563-4572.
- Tinikul R, Chunthaboon P, Phonbuppha J, and Paladkong T. 2020. Bacterial luciferase: Molecular mechanisms and applications. In: Chaiyen, P & F. Tamanoi (Eds.) *The Enzymes*. Academic Press, UK. p: 427-455.
- Tinikul, R., N. Lawan., N. Akeratchatapan., P. Pimviriyakul., W. Chinantuya., C. Suadee., J. Sucharitakul., P. Chenprakhon., D. P. Ballou., B. Entsch, and P. Chaiyen., 2021. Protonation status and control mechanism of flavin-oxygen intermediates in the reaction of bacterial luciferase. *The FEBS Journal* 288 (10) : 3246-3260.
- Tripathi, N.K. & Shrivastava, A., 2019. Recent developments in bioprocessing of recombinant proteins: expression hosts and process development. *Frontiers in Bioengineering and Biotechnology* 7 : 420.
- Tripathi, N. K. 2016. Production and Purification of Recombinant Proteins from *Escherichia coli*. *ChemBioEng Reviews*. 3(3): 116–133.
- Wingfield, P.T., 2015. Overview of the purification of recombinant proteins. *Current Protocols in Protein Science* 80(1): 6-1.
- Wu, C., K.Y. Soh, & S. Wang, 2007. Ion-exchange membrane chromatography method for rapid and efficient purification of recombinant baculovirus and baculovirus gp64 protein. *Journal of Human Gene Therapy* 18(7) : 665-672.
- Yuan, H., J. Lv, J. Gong, G. Xiao, R. Zhu., L. Li, & J. Qiu., 2018. Secondary structures and their effects on antioxidant capacity of antioxidant peptides in yogurt. *International Journal of Food Properties* 21(1) : 2167-2180.
- .