

DAFTAR PUSTAKA

- Arber W. 1979. Promotion and limitation of genetic exchange. *Experientia* 35(3): 287-293.
- Aguilar GL, Lopez AMS, Aceituno CB, Avila JAC, Guerrero JAL, and Quesada RA. 2016. DNA Source Selection for Downstream Applications Based on DNA Quality Indicators Analysis. *Biopreserv Biobank* 14(4): 264-270.
- Bergquist PL, Gibbs MD, Morris DD, Te'O VS, Saul DJ, and Morgan HW. 1999. Molecular diversity of thermophilic cellulolytic and hemicellulolytic bacteria. *FEMS Microbiology Ecology* 28(2): 99-110.
- Bhagavan NV, and Ha CE. 2015. Structure and Properties of DNA. *Essentials of Medical Biochemistry (2nd Edition)*. Academic Press. London, pp. 396-397.
- Bikos DA, and Mason TG. 2019. Band-collision gel electrophoresis. *Nat Commun*. 10: 3631.
- Boisset C, Chanzy H, Henrissat B, Lamed R, Shoham Y, and Bayer EA. 1999. Digestion of crystalline cellulose substrates by the *Clostridium thermocellum* cellosome: Structural and morphological aspects. *Biochemical Journal* 340(3): 829-835.
- Brown TA. 2016. *Gene Cloning and DNA Analysis: An Introduction*. John Wiley & Sons, Ltd. Oxford, pp. 6-7.
- Carter M, and Shieh J. 2015. Molecular Cloning and Recombinant DNA Technology. *Guide to Research Techniques in Neuroscience (2nd Edition)*. Academic Press. London, pp. 219-231.
- Chuang LY, Cheng YH, and Yang CH. 2013. Specific primer design for the polymerase chain reaction. *Biotechnol. Lett.* 35(10): 1541-1549.
- Chuang LY, Yang CH, Tsui KH, Cheng YH, Chang PL, Wen CH, and Chang HW. 2008. Restriction enzyme mining for SNPs in genomes. *Anticancer Res.* 28(4A): 2001-2007.
- Chung CT, Niemela SL, Miller RH. One-step preparation of competent *Escherichia coli*: transformation and storage of bacterial cells in the same solution. *Proc Natl Acad Sci USA* 86(7): 2172-2175.
- Clark DP, and Pazdernik NJ. 2013. Cloning Genes for Analysis. *Molecular Biology (2nd Edition)*. Academic Cell. Waltham, p. e88.
- Cox, MM. 2015. *Molecular Biology: Principles and Practice*. W. H. Freeman and Company. New York, pp. 221-238.
- Das S, and Dash HR. 2015. *Microbial Biotechnology-A Laboratory Manual for Bacterial Systems*. Springer India. New Delhi, pp. 35-36.

- Demirbaş A. 2005. Bioethanol from Cellulosic Materials: A Renewable Motor Fuel from Biomass. *Energy Sources* 27(4): 327-337.
- Desvaux M. 2005. *Clostridium cellulolyticum*: model organism of mesophilic cellulolytic clostridia. *FEMS Microbiology Reviews* 29(4): 741-764.
- Durfee T, Nelson R, Baldwin S, Plunkett G, Burland V, Mau B, Petrosino JF, Qin X, Muzny DM, Ayele M, Gibbs RA, Csorgo B, Posfai G, Weinstock GM, and Blattner FR. 2008. The Complete Genome Sequence of *Escherichia coli* DH10B: Insights into the Biology of a Laboratory Workhorse. *J Bacteriol.* 190(7): 2597-2606.
- Fajrin SAR. 2019. *Penyisipan Gen cbhA dari Aspergillus niger pada Vektor Ekspresi Yeast Sebagai Tahapan Pembentukan Strain Penghasil Etanol Selulosa*. Skripsi. Tidak Diterbitkan. Fakultas Biologi. Universitas Gadjah Mada: Yogyakarta.
- Ferguson KA. Starch-gel electrophoresis--application to the classification of pituitary proteins and polypeptides. *Metabolism.* 13(10): 859-868.
- Fredricks DN, Smith C, and Meier A. 2005. Comparison of Six DNA Extraction Methods for Recovery of Fungal DNA as Assessed by Quantitative PCR. *J Clin Microbiol.* 43(10): 5122-5128.
- Friedlingstein P, Jones MW, O'Sullivan M, Andrew RM, Hauck J, Peters GP, *et al.* 2019. Global Carbon Budget 2019. *Earth Syst. Sci. Data* 11(4): 1783-1838.
- Gao J, Weng H, Zhu D, Yuan M, Guan F, and Xi Y. 2008. Production and characterization of cellulolytic enzymes from the thermoacidophilic fungal *Aspergillus terreus* M11 under solid-state cultivation of corn stover. *Bioresource Technology* 99(16): 7623-7629.
- Gielkens, MMC, Dekkers E, Visser J, and de Graaff LH. 1999. Two Cellobiohydrolase-Encoding Genes from *Aspergillus niger* Require D-Xylose and the Xylanolytic Transcriptional Activator XlnR for Their Expression. *Applied and Environmental Microbiology* 65(10): 4340-4345.
- Gupta R, Sharma KK, and Kuhad RC. 2009. Separate hydrolysis and fermentation (SHF) of *Prosopis juliflora*, a woody substrate, for the production of cellulosic ethanol by *Saccharomyces cerevisiae* and *Pichia stipitis*-NCIM 3498. *Bioresource Technology* 100(3): 1214-1220.
- Gurr S J, Unkles S E, Kinghorn J R. 1987. The structure and organization of nuclear genes of filamentous fungi. In: Kinghorn J R, editor. *Gene structure in eukaryotic microbes*. IRL Press, pp. 93-139.
- Gusakov AV, Kondratyeva EG, and Sinitsyn AP. 2011. Comparison of two methods for assaying reducing sugars in the determination of carbohydrase activities. *Int J Anal Chem* 2011: 283658.
- Habibi Y, Lucia LA, and Rojas OJ. 2010. Cellulose nanocrystals: chemistry, self-assembly, and applications. *Chemical Reviews* 110(6): 3479-3500.

- Hanahan D, Jesse J, and Bloom FR. 1991. [4] Plasmid transformation of *Escherichia coli* and other bacteria. *Methods in Enzymology*. vol. 204, p. 63.
- Helling RB, Goodman HM, Boyer HW. Analysis of endonuclease R•EcoRI fragments of DNA from lambdoid bacteriophages and other viruses by agarose-gel electrophoresis. *J. Virol.* 14(5): 1235–1244.
- Hoseini SS, and Sauer MG. 2015. Molecular cloning using polymerase chain reaction, an educational guide for cellular engineering. *J Biol Eng.* 9: 2.
- Howe C. 2007. *Gene Cloning and Manipulation*. Cambridge University Press. Cambridge, pp. 14-15.
- Huang Q, and Fu W-L. 2005. Comparative analysis of the DNA staining efficiencies of different fluorescent dyes in preparative agarose gel electrophoresis. *Clin Chem Lab Med.* 43(8): 841-842.
- Jørgensen H, Kristensen JB, and Felby C. 2007. Enzymatic conversion of lignocellulose into fermentable sugars: challenges and opportunities 1(2): 119-134.
- Khokhar I, Haider MS, Mushtaq S, and Mukhtar I. 2012. Isolation and Screening of Highly Cellulolytic Filamentous Fungi. *J. Appl. Sci. Environ. Manage.* 16(3): 223-226.
- Kitamoto N, Matsui J, Kawai Y, Kato A, Yoshino S, Ohmiya K, and Tsukagoshi N. 1998. Utilization of the TEF1- α gene (*TEF1*) promoter for expression of polygalacturonase genes, *pgaA* and *pgaB*, in *Aspergillus oryzae*. *Appl Microbiol Biotechnol* 50(1): 85-92.
- Kuhad RC, and Singh A. 2013. *Biotechnology for Environmental Management and Resource Recovery*. Springer India. New Delhi, pp. 89-106.
- Laursen W. 2006. *Students take a green initiative. The Chemical Engineer* 774: 32-34.
- Lee PY, Costumbrado J, Hsu C, and Kim YH. 2012. Agarose Gel Electrophoresis for the Separation of DNA Fragments. *Journal of Visualized Experiments* 62: 3923.
- Lessard JC. 2013. Molecular cloning. *Methods in Enzymology*. vol. 529, pp. 86-87.
- Liu S. 2017. *Bioprocess Engineering: Kinetics, Sustainability, and Reactor Design*. Elsevier. Amsterdam, p. 796.
- Lodish H, Berk A, Zipursky SL, Matsudaira P, Baltimore D, and Darnell J. 2000. *Molecular Cell Biology (4th Edition)*. W. H. Freeman. New York. Section 7.3, Identifying, Analyzing, and Sequencing Cloned DNA. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK21505/>
- Mabee WE, Gregg DJ, and Saddler JN. 2005. Assessing the emerging biorefinery sector in Canada. *Appl Biochem Biotechnol* 123(1-3): 765-778.

- Marintcheva B. 2018. Viral Tools for In Vitro Manipulations of Nucleic Acids: Molecular Cloning. In: *Harnessing the Power of Viruses*. Elsevier Inc. London, pp. 27-67.
- Marshall O. 2007. Graphical design of primers with PerlPrimer. *Methods. Mol. Biol.* 402: 403-14.
- Mathew GM, Sukumaran RK, Singhanian RR, and Pandey A. 2008. Progress in research on fungal cellulases for lignocellulose degradation. *Journal of Scientific & Industrial Research* 67(11): 898-907.
- McKendry P. 2002. Energy production from biomass (part1): overview of biomass. *BioresourTechnol* 83(1): 37-46.
- Monserate E, Leschine SB, and Canale-Parola E. 2001. *Clostridium hungatei* sp. nov., a mesophilic, N₂-fixing cellulolytic bacterium isolated from soil. *International Journal of Systematics, Evolution and Microbiology* 51(1): 123-132.
- Motohashi K. 2015. A simple and efficient seamless DNA cloning method using SLiCE from *Escherichia coli* laboratory strains and its application to SLiP site-directed mutagenesis. *BMC Biotechnol.* 15: 47.
- New England Biolabs (NEB). (2020, February 10). *PstI-HF*®. Retrieved from <https://international.neb.com/products/r3140-psti-hf#Product%20Information>
- New England Biolabs (NEB). (2020, February 10). *SpeI-HF*®. Retrieved from <https://international.neb.com/products/r3133-spei-hf#Product%20Information>
- Nicholl DST. 2002. *An Introduction to Genetic Engineering*. Third edition. Cambridge University Press. Cambridge, pp. 58-60.
- Panja S, Saha S, Jana B, and Basu T. 2006. Role of membrane potential on artificial transformation of *E. coli* with plasmid DNA. *J Biotechnol.* 127: 14-20.
- Pelley JW. 2007. *Elsevier's Integrated Biochemistry*. Mosby, Inc. Philadelphia, pp. 160-162.
- Pingoud A, and Jeltsch A. 2001. Structure and function of type II restriction endonucleases. *Nucleic Acids Research* 29(18): 3705-3727.
- Powell EA, and Mortensen JE. 2016. Extraction of total nucleic acids from bacterial isolates using the bioMérieux NucliSENS easyMAG total nucleic acid extractor. *Ann Clin Microbiol Antimicrob.* 15: 54.
- Prakash GD, Anish RV, Jagadeesh G, and Chakravorty D. 2011. Bacterial transformation using micro-shock waves. *Analytical Biochemistry* 419(2): 292-301.
- Sambrook J, Fritsch EF, and Maniatis T. 1989. *Molecular Cloning: A Laboratory Manual (2nd Edition)*. Cold Spring Harbor Laboratory Press. New York, p. 5.72.

- Sambrook J, and Russel DW. 2001. *Molecular cloning: A Laboratory Manual (3rd Edition)*. Cold Spring Harbour Laboratory Press. New York, pp. A3.6-A3.10, 1.25-1.26, 1.110, 1.157-1.159.
- Sarkar N, Ghosh SK, Bannerjee S, Aikat K. 2012. Bioethanol production from agricultural wastes: An overview. *Renewable Energy*, 37(1): 19–27.
- Singh J, Birbian N, Sinha S, and Goswami A. 2014. A critical review on PCR, its types and applications. *Int. J. Adv. Res. Biol. Sci.* 1(7): 65-80.
- Smith HO, and Nathans D. 1973. A Suggested nomenclature for bacterial host modification and restriction systems and their enzymes. *Journal of Molecular Biology* 81(3): 419-423.
- Song JM, Picologlou S, Grant CM, Firoozan M, Tuite MF, and Liebman S. 1989. Elongation Factor EF-1 α Gene Dosage Alters Translational Fidelity in *Saccharomyces cerevisiae*. *Molecular and Cellular Biology* 9(10): 4571-4575.
- Stevens CV, and Verhe R. 2004. *Renewable Bioresources Scope and Modification for Non-food Application*. John Wiley and Sons Ltd. Chicester, pp. 2-3.
- Sukuraman RK, Shingania RR, and Pandey A. 2005. Microbial cellulases production, application and challenges. *J. Scientific. Ind. Res.* 64(11): 832-844.
- Sun QY, Ding LW, He LL, Sun YB, Shao JL, Luo M, and Xu ZF. 2009. Culture of *Escherichia coli* in SOC medium improves the cloning efficiency of toxic protein genes. *Analytical Biochemistry* 394(1): 144-146.
- Tang X, Nakata Y, Li HO, Zhang M, Gao H, Fujita A, Sakatsume O, Ohta T, and Yokoyama K. 1994. The optimization of preparations of competent cells for transformation of *E. coli*. *Nucleic Acids Research* 22: 2857-2858.
- Tolia NH, and Joshua-Tor L. 2006. Strategies for protein coexpression in *Escherichia coli*. *Nature Methods* 3(1): 55-64.
- Tu Q, Yin J, Fu J, Herrmann J, Li Y, Yin Y, Stewart AF, Müller R, and Zhang Y. 2016. Room temperature electrocompetent bacterial cells improve DNA transformation and recombineering efficiency. *Sci Rep.* 6: 24648.
- Voytas D. 2001. Agarose Gel Electrophoresis. *Current Protocols in Immunology* 2(1): 10.4.1-10.4.8.
- Wacker MJ, and Godard MP. 2005. Analysis of one-step and two-step Real-Time RT-PCR using SuperScript III. *J Biomol. Tech.* 16(3): 266-271.
- Wakasugi K, Quinn CL, Tao N, and Schimmel P. 1998. Genetic code in evolution: switching species-specific aminoacylation with a peptide transplant. *The EMBO Journal* 17(1): 297-305.
- Warren DJ. 2011. Preparation of highly efficient electrocompetent *Escherichia coli* using glycerol/mannitol density step centrifugation. *Analytical Biochemistry* 413(2): 207-207.

- Wingren A, Galbe M, Roslander C, Rudolf A, and Zacchi G. 2005. Effect of reduction in yeast and enzyme concentrations in a simultaneous-saccharification-and-fermentation-based bioethanol process: technical and economic evaluation. *Appl Biochem Biotechnol* 121-124(1-3): 485-499.
- Wink M. 2006. *An Introduction to Molecular Biotechnology*. Wiley-VCH. Weinheim, p. 221.
- Wood WN, Smith KD, Ream JA, and Lewis LK. 2017. Enhancing yields of low and single copy number plasmid DNAs from *E. coli* cells. *J Microbiol Methods* 133: 46-51.
- Wyman CE. 1994. Ethanol from lignocellulosic biomass: technology, economics, and opportunities. *Bioresour. Technol.* 50(1): 3–15.
- Xu H, Li B, and Mu X. 2016. Review of Alkali-Based Pretreatment to Enhance Enzymatic Saccharification for Lignocellulosic Biomass Conversion. *Ind. Eng. Chem. Res.* 55(32): 8691-8705.
- Zimmer EA, and Roalson EH. 2005. *Methods in Enzymology*. Elsevier Academic Press. San Diego, pp. 32-33.