

## DAFTAR PUSTAKA

- Agilent Technologies. 2012. *Introduction to Quantitative PCR: Methods and Applications Guide*. Germany. 114 hal.
- Agus, R., dan F. Fahrudin. 2018. Ligasi Gen *Rv 1980c* Pengkode Protein *MPT 64* ke *pGEM-T Mycobacterium tuberculosis* Sebagai Antigen untuk Immunodiagnostik Tuberkulosis Laten. *Jurnal Ilmu Alam dan Lingkungan*. 8(1).
- Aisyah, S. N., S. Sulastri, R. Retni, R. H. Yani, E. Syafriani, L. Syukriani, and J. Jamsari. 2017. Suppression of *Colletotrichum gloeosporioides* by Indigenous Phyllobacterium and Its Compatibility with Rhizobacteria. *Asian J. Plant Pathol* 11: 139-147.
- Berg, G. 2000. Diversity of Antifungal and Plant-Associated *Serratia plymuthica* Strains. *Journal of Applied Microbiology* 88(6): 952-960.
- Benhamou N, S. Gagné, D. Le Quére, and L. Dehbi. 2000. Bacterial-Mediated Induced Resistance in Cucumber: Beneficial Effect of the Endophytic Bacterium *Serratia plymuthica* on the Protection Against Infection by *Pythium ultimum*. *Phytopathology* 90: 45-56.
- Brisco, P., D. Creswell, S. Ekenberg, J. Towne, D. Holmes, R. Hurst, and J. Grosch. 1996. Wizard® Plus SV Minipreps DNA Purification System: The Next Generation in Miniprep Purification. *Promega Notes Magazine* 59(10).
- Buckingham, J., K. H. Baggaley, A. D. Roberts, and L. F. Szabo. 2010. *Dictionary of Alkaloids*. Second Edition. Boca Raton: CRC Press. 2377 p.
- Bustin, S.A. 2000. Absolute Quantification of mRNA Using Real-Time Reversetranscription Polymerase Chain Reaction Assays. *J. Mol. Endocrinol* 25: 169–193.
- Cannon, P., U. Damm, P. Johnston and B. Weir. 2012. *Colletotrichum* Current Status and Future Directions. *Studies in Mycology* 73: 181-213.
- Casali, N. and A. Preston. 2003. *E. coli Plasmid Vectors : Methods and Applications*. New Jersey: Humana Press. 305 p.
- Chandrawijaya, Y., T. Tajuddin, H. P. Kusumaningrum, dan A. Budiharjo. 2013. Pelacakan Fragmen Gen Penyandi Enzim  $\beta$ -Ketoasil-ACP Sintase II (KAS II) dari Mesokarp Kelapa Sawit (*Elaeis guineensis* Jacq. L). *Jurnal Akademika Biologi* 2(2): 45-56.

- Chen and T. T. Kuo. 1993. A Simple and Rapid Method for the Preparation of Gram-Negative Bacterial Genomic DNA. *Nucleic acids research* 21(9): 2260.
- Clark, D.P. 2016. *Biotechnology: DNA, RNA, and Protein*. Second Edition. Waltham, MA: Elsevier Inc. 33–61.
- Dorak, M.T. 2006. *Real Time PCR*. United Kingdom: Taylor & Francis Group. 333 p.
- Echols, H.G. 2001. *Operators and Promoters: The Story of Molecular Biology and Its Creators*. Berkeley: University of California Press. 461 p.
- Fatchiyah. 2011. Pelatihan Analisis *Fingerprinting* DNA Tanaman dengan Metode RAPD. [Modul]. Malang. Laboratorium Sentral Ilmu Hayati Universitas Brawijaya.
- Febbiyanti, T.R dan A. P. J. Kusdiana. 2012. Pengaruh Infeksi Jamur *Colletotrichum gloeosporioides* Terhadap Kerusakan Daun Tanaman Karet. Dalam: Prosiding Konferensi Nasional Karet. Yogyakarta, 19-20 September 2012 Hal 251-258.
- Frankowski, J, G. Berg, and H. Bahl. 1998. Mechanisms Involved in the Antifungal Activity of the Rhizobacterium *Serratia plymuthica*. *IOBC/WPRS Bulletin* 21: 45-50.
- Geneaid. 2020. Presto™ Mini RNA Bacteria Kit Protocol. <http://www.geneaid.com> [diakses: 11 April 2020].
- Gu, Y and B.B. Snider. 2003. Synthesis of ent-Haterumalide NA (ent-oocydin A) methyl ester. *Organic letters* 5(23): 4385-4388.
- Handoyo, D dan A Rudiretna. 2000. Prinsip Umum dan Pelaksanaan Polymerase Chain Reaction (PCR). *Unitas* 9(1): 17-29.
- Hutchinson, C.R. 1999. Microbial Polyketide Synthases: More and More Prolific. *Proceedings of the National Academy of Sciences of the USA* 96: 3336–3338.
- iGEM. 2020. Registry of Standard Biological Parts. <http://www.parts.igem.org/Help:Promoters/Regulation> [diakses: 21 April 2020].
- Jacobi, M, G. Winkelmann, D. Kaiser, C. Kempler, G. Jung, , G. Berg, and H. Bahl. 1996. Maltophilin: A New Antifungal Compound Produced by *Stenotrophomonas maltophilia* R3089. *Journal of Antibiotics* 49: 1101–1104.
- Jamsari. 2007. *Bioteknologi Pemula: Prinsip Dasar dan Aplikasi Analisis Molekuler*. Pekanbaru: UNRI Press. 168 hal.

- Kalbe, C., P. Marten, and G. Berg. 1996. Strains of the Genus *Serratia* as Beneficial Rhizobacteria of Oilseed Rape with Antifungal Properties. *Microbiological Research* 151: 433–439.
- Kamensky, M, M. Ovadis, I. Chet, and L. Chernin. 2003. Soil-Borne Strain IC14 of *Serratia plymuthica* with Multiple Mechanisms of Antifungal Activity Provides Biocontrol of *Botrytis cinerea* and *Sclerotinia sclerotiorum* Diseases. *Soil Biology and Biochemistry* 35(2): 323-331.
- Kendrew S.J and E. Lawrence. 1994. *The Encyclopedia of Molecular Biology*. Cambridge: Blackwell Science. 1165 p.
- Koetsier, G and E. Cantor. 2019. A Practicle Guide to Analysing Nucleic Acid Concentration and Purity with Microvolume Spectrophotometer. *New England Biolabs Inc* 1-8.
- Kumar, P.G, S. M. H. Ahmed, S. Desai, E. L. D. Amalraj and A. Rasul. 2014. In Vitro Screening for Abiotic Stress Tolerance in Potent Biocontrol and Plant Growth Promoting Strains of *Pseudomonas* and *Bacillus spp.* *International Journal of Bacteriology* 2-6.
- Lestari, C.W, V. Narita, T. M. Soediro, dan A. Sjarurachman. 2016. Ekspresi dan Purifikasi Protein Rekombinan Non-Struktural NS1 Virus Dengue Serotipe 1 Strain Indonesia pada *Pichia pastoris*. *Indonesian Journal of Biotechnology Medicine* 5(2): 121-132.
- Levenfors, J.J, R. Hedman, C. Thaning, B. Gerhardson, and C.J. Welch. 2004. Broad-Spectrum Antifungal Metabolites Produced by the Soil Bacterium *Serratia plymuthica* A 153. *Soil Biology and Biochemistry* 36(4): 677-685.
- Liu, X, M. Bimerew, Y. Ma, H. Müller, M. Ovadis, L. Eberl, and L. Chernin. 2007. Quorum-Sensing Signaling is Required for Production of the Antibiotic Pyrrolnitrin in a Rhizospheric Biocontrol Strain of *Serratia plymuthica*. *FEMS Microbiology Letters* 270(2): 299-305.
- Lumen Learning. 2020. Prokaryotic Gene Regulation: Different Components of Prokaryotic Gene Regulation. <https://courses.lumenlearning.com> [diakses: 12 Mei 2020].
- Madigan, M.T, K.S. Bender, D.H. Buckley, W.M. Sattley, and D.A Stahl. 2017. *Brock Biology of Microorganisms*. Fifteenth Edition. Boston: MA. Pearson.
- Matilla, M.A, H. Stöckmann, F.J. Leeper, and G.P. Salmond. 2012. Bacterial Biosynthetic Gene Clusters Encoding the Anti-cancer Haterumalide Class of Molecules: Biogenesis of the Broad Spectrum Antifungal and Anti-oomycete compound, oocydin A. *Journal of Biological Chemistry* 287(46): 39125-39138.

- Matilla, M.A, F. J. Leeper, and G.P. Salmond. 2015. Biosynthesis of the Antifungal Haterumalide, Oocydin A, in *Serratia*, and Its Regulation by Quorum Sensing, RpoS and Hfq. *Environmental Microbiology* 17(8): 2993-3008.
- Mawardi, A, dan E.R. Ramandey. 2017. Ligasi dan Transformasi Gen *MSP1 Plasmodium falciparum* Penyebab Malaria di Kota Jayapura. *Majalah Kedokteran Bandung* 49(4): 213-223.
- Mycobank. 2020. *Coletotrichum gloeosporioides*, *Sclerotiumrolfsii*, dan *Fusarium oxysporum*. <http://www.mycobank.org> [diakses: 15 Maret 2020].
- Nakayama, T, Y. Homma, Y. Hasidoko, J. Mizutani, and S. Tahara. 1999. Possible Role of *Xanthobaccins* Produced by *Stenotrophomonas sp.* Strain SB-K88 in Suppression of Sugar Beet Damping-Off Disease. *Applied and Environmental Microbiology* 65: 4334–4339.
- Nelson, D and M. Cox. 2004. *Lehninger: Principle of Biochemistry*. Fourth Edition. New York: W. H. Freeman and Company.
- Neupane, S, R.D. Finlay, S. Alström, M. Elfstrand, and N. Högborg. 2015. Transcriptional Responses of the Bacterial Antagonist *Serratia plymuthica* to the Fungal Phytopathogen *Rhizoctonia solani*. *Environmental Microbiology Reports* 7(1): 123-127.
- Ovadis, M, X. Liu, S. Gavriel, Z. Ismailov, I. Chet, and L. Chernin. 2004. The Global Regulator Genes From Biocontrol Strain *Serratia plymuthica* IC1270: Cloning, Sequencing, and Functional Studies. *Journal of Bacteriology* 186(15): 4986-4993.
- Poonpolgul, S. 2007. Chili pepper anthracnose in Thailand. The First International Symposium on Chili Anthracnose, Convention Center, Seoul National University, Korea 23: 333-338.
- Reece, J.B, L.A. Urry, M.L. Cain, S.A Wasserman, P.V. Minorsky, and R.B Jackson. 2011. *Campbell Biology*. Ninth Edition. USA: Pearson Education, Inc.
- Reynolds, K.A. 1998. Combinatorial Biosynthesis: Lesson Learned from Nature. *Proceedings of the National Academy of Sciences of the USA* 95: 12744–12746.
- Rossen, L, P. Nørskov, K. Holmstrøm, and O.F. Rasmussen. 1992. Inhibition of PCR by Components of Food Samples, Microbial Diagnostic Assays and DNA-Extraction Solutions. *International Journal of Food Microbiology* 17(1): 37-45.
- Rutherford, S.T and B.L. Bassler. 2012. Bacterial Quorum Sensing: Its Role in Virulence and Possibilities for Its Control [review]. *Cold Spring Harbor Perspectives in Medicine* 2(11): 12427.

- Sahitya, U.L, S. Deepthi, P. Kasim, P. Suneetha, and M. Krishna. 2014. Anthracnose, a Prevalent Disease in *Capsicum*. *Research Journal of Pharmaceutical, Biological and Chemical Sciences* 5: 1583-1604.
- Saputra, W. 2015. Analisis Pengaruh pH terhadap Aktivitas Antijamur dari Bakteri Antagonis dalam Menekan Pertumbuhan Jamur *Colletotrichum gloeosporioides* melalui Gambaran Profil Protein. [Skripsi]. Padang. Fakultas Pertanian. Universitas Andalas. 40 hal.
- Schmidt, R, V. de Jager, D. Zuhlke, C. Wolff, J. Bernhardt, K. Cankar, and K. Riedel. 2017. Fungal Volatile Compounds Induce Production of the Secondary Metabolite Sodorifen in *Serratia plymuthica* PRI-2C. *Scientific Reports* 7(1): 1-14.
- Sharma, M. and S. Kulshrestha. 2015. *Colletotrichum gloeosporioides*: An Anthracnose Causing Pathogen of Fruits and Vegetables. *Bioscience Biotechnology Research Asia* 12: 1233-1246.
- Shimada, T, Y. Yamazaki, K. Tanaka, and A. Ishihama. 2014. The Whole Set of Constitutive Promoters Recognized by RNA Polymerase *RpoD* Holoenzyme of *Escherichia coli*. *PloS one* 9(3).
- Solomon, E.P, L.R. Berg, and D.W. Martin. 2008. *Biology*. Cengage Learning.
- Strobel, G, J.Y. Li, F. Sugawara, H. Koshino, J. Harpe, and W.M. Hess. 1999. Oocydine A, a Chlorinated Macrocyclic Lactone with Potent Anti-Oomycete Activity from *Serratia marcescens*. *Microbiology* 145(12): 3557-3564.
- Suciati, Y, A.R. Prijanti, dan M. Sadikin. 2012. Pola mRNA Hypoxia Inducible Factor-1a (HIF-1a) dan Ekspresi Protein HIF-1a Ginjal Tikus pada Hipoksia Sistemik Kronik. *Jurnal Kedokteran YARSI* 20(1), 01-13.
- Suryaningsih, K.I, I.M. Sudana, dan I.K. Suada. 2015. Pengendalian Penyakit Antraknosa (*Colletotrichum gloeosporioides* Penz) Pada Buah Jeruk Siam (*Citrus nobilis* var. *microcarpa*) dengan Menggunakan Minyak Atsiri Cengkeh dan Sereh Dapur. *Jurnal Agroekoteknologi Tropika (Journal of Tropical Agroecotechnology)*.
- Taban, B.M, U. Ben, and S.A. Aytac. 2009. Rapid Detection of *Salmonella* in Milk by Combined Immunomagnetic Separation-Polymerase Chain Reaction Assay. *Journal of Dairy Science* 92(6): 2382-2388.
- Thaning, C, C.J. Welch, J.J. Borowicz, R. Hedman, and B. Gerhardson. 2001. Suppression of *Sclerotinia sclerotiorum* Apothecial Formation by the Soil Bacterium *Serratia plymuthica*: Identification of a Chlorinated Macrolide as One of the Causal Agents. *Soil Biology and Biochemistry* 33(12-13): 1817-1826.

- Toyobo. 2020. Revertra Ace® qPCR RT Master Mix with gDNA Remover. <http://www.toyobo.co.jp/e/bio> [diakses: 11 April 2020].
- Ueda, M, M. Yamaura, Y. Ikeda, Y. Suzuki, K. Yoshizato, I. Hayakawa, and H. Kigoshi. 2009. Total Synthesis and Cytotoxicity of Haterumalides NA and B and Their Artificial Analogues. *The Journal of Organic Chemistry* 74(9): 3370-3377.
- Ulfin, D, F. Kurniawan, dan A.R.M Fuad. 2016. Penggunaan Agar-Agar Komersial sebagai Media Gel Elektroforesis Pada Zat Warna Remazol: Pengaruh Komposisi Buffer, pH Buffer dan Konsentrasi Media. *Jurnal Sains dan Seni ITS* 5(2).
- Vandesompele, J. 2008. *qPCR Guide*. Ghent University. 1-68.
- Vu, H. L, S. Troubetzkoy, H.H. Nguyen, M.W. Russell, and J. Mestecky. 2000. A Method for Quantification of Absolute Amounts of Nucleic Acids by (RT)-PCR and a New Mathematical Model for Data Analysis. *Nucleic Acids Research* 28(7): e18-e18.
- Xue, Q, G. Ashley, C.R. Hutchinson, and D.V. Santi. 1999. A Multiplasmid Approach to Preparing Large Libraries of Polyketides. *Biochemistry* 96:

