

## DAFTAR PUSTAKA

- Benitez, T., Rincoin, A. M., Limon, M. C., Codon, A. C. 2004. Biocontrol mechanisms of *Trichoderma* strains. *Int. Microbiol.* **7**, 249-260.
- Chesters, C. G. C dan Bull, A. T. 1963. The Enzymatic Degradation of Laminarin. *J. Biochem.* **86**, 31.
- Darwis, A. A. dan Sukara, E. 1990. *Isolasi, Purifikasi dan Karakterisasi Enzim*. Departemen Pendidikan dan Kebudayaan Direktorat Jendral Pendidikan Tinggi Pusat Antar Universitas Bioteknologi IPB. Bogor.
- de la Cruz, J., Rey, M., Lora, J. M., Hidelago-Gallego, A., Dominiguez, F., Pintor-Toro, J. A., Lobell, A. dan Benitez, T. 1993. Carbon source control on  $\beta$ -glucanase, chitinase and chitinase from *Trichoderma harzianum*. *Arch. Microbiol.* **159**, 316-332.
- Devi, S. Nugroho, T.T., Chainulfiffah, Dahliaty, A. 2000. Pemurnian enzim selulase eksrtaseluler dari jamur *Trichoderma viride* TNJ63 isolat dari wilayah daratan Riau. *Laporan penelitian* Pekanbaru: Lembaga Penelitian Universitas Riau.
- Domsch, K.H., Gams, W., Anderson, T.H. 1980. *Compendium of soil fungi*. Vol 1 Academic press, London.
- Doctor fungus. 2007. *Trichoderma spp.* <http://www.doctorfungus.org/thefungi/trichoderma.html>. Tanggal akses: 15 Januari 2007.
- Druzhinina, I., Kubicek, C. P. 2005. Spesies concepts and biodiversity in *Trichoderma* dan *Hypocrea*: from aggregate species to species clusters. *J. zhejiang univ SCI.* **6B**, 100-112.
- Green III, F. Clausen, C. A., Highley, T. L. 1989. Adaptation of the Nelson-Somogyi Reducing sugar Assay to a Microassay Using Microtiter Plates. *J. Anal. Biochem.* **182**, 197-199
- Harman, G.E., Kubicek, C. P. (eds). 1998. *Trichoderma dan Gliocladium*, Vol. 2: Enzymes, biological control and commercial applications. Taylor and Francis, Ltd., London.
- Harman, G.E. 2006. *Trichoderma sp.*, including *T. harzianum*, *T. viride*, *T. koningii*, *T. hamatum* and other sp. Deuteromycetes, Moniliales (asexual classification system). Available from: <http://www.nysaes.cornell.edu/biocontrol/pathogen/trichoderma.html>. Tanggal akses: 20 mei 2006.
- Holme, J. D. dan Peck, H. 1983. *Analitical Biochemistry*. Longman Group Limited. New York. 395.

- Ifriadi, R. 2005. Aplikasi biokontrol *Gliocladium sp.* TNC73 dan *Trichoderma harzianum* TNC52 dalam menanggulangi penyakit karat putih pada bayam merah (*Amaranthus tricolor* var *blihem rubrum*). Skripsi S1. jurusan Kimia, FMIPA, Universitas Riau, Pekanbaru.
- Ilmen, M., Thrame, C., Pentikki, M. 1996. The glucose repressor gene *cre I* of *Trichoderma* : isolation and expression of a full-length and a truncated mutant form.. *Mol. Gen. Genet.* **251**, 451-460.
- Lehninger, A.L. 1998. *Dasar-dasar Biokimia*, Jilid 1. Erlangga, Jakarta.
- Limon, M. C., Pintor – Toro, J. A., Benitez, T. 1999. Increased antifungal activity of *Trichoderma harzianum* heamsformants that overexpeess a 33 k Da chitinase. *Phytopathology* **89**, 254-261.
- Marlina, R. 2007. Aplikasi biokontrol *T. harizianum* TNC52 dan *T. viride* TNJ63 dalam menanggulangi penyakit karat putih pada kangkung. *Skripsi.* FMIPA-UNRI, Pekanbaru.
- Nobe, R. 2003. Purification and Characterization of Laminaran Hydrolase from *Trichoderma viride*. *J. Biotechnol. Biochem.* **67**, 1349-1357.
- Nugroho, T.T., Sumar, A., Saryono, Dahliaty, A. dan Chainulfiffah. 1995. *Penuntun Praktikum Biokimia Dasar* . Kimia-FMIPA, Universitas Riau, Pekanbaru.
- Nugroho, T.T., Ali M., Ginting, C., Wahyuningsih, Dahliaty, A., Devi, S., Sukmarisa, Y. 2003. Isolasi dan Karakterisasi sebagian Kitinase *Trichoderma viride* TNJ63. *J. Natur Indonesia.* **5**, 101-106.
- Nugroho, T.T. 2006. Versatile plant protection biocontrol of fungi : Biochemistry and Biothechnology potential in agriculture, industry and health. Prosiding Seminar UKM-UNRI ke-4, 1-2 Agustus 2006.
- Ooi, V. E. dan Liu, F. 2000. Immunomodulation and Anti-Cancer Activity of Polysaccharide-Protein Complexes. *Curr. Med. Chem.* **7**, 715-729.
- Poedjiadi, A. 1994. *Dasar-dasar Biokimia*. UI-Press, Jakarta.
- Price, N. C. dan Dwek, R. A. 1982. *Principles and Problems in Physical Chemistry for Biochemists*, Sec. Ed. Oxford. University Press. London.
- Pubchem.ncbi.nlm.nih.gov. 2008. *Structure Laminarin*. <http://pubchem.ncbi.nlm.nih.gov/summary/summary.cgi?cid=439306#Mesh>. Tanggal akses: 15 September 2008.
- Rosner, B. 1995. *Fundamentals of Biostatistics*, Ed 4, Duxbury Press, Washington.

- Schlegel, H.G., Schmidt, K. 1994.. *Mikrobiologi umum*. Terjemahan RMT Baskoro. UGM Press. Yogyakarta.
- Shida, M., Ushioda, Y., Nakajima, T., Matsuda, K. 1982. Structure of the alkali – insoluble skeletal glucan of *Lentinus edodes*. *J. Biochem.* (Tokyo), **90**, 1093- 1100.
- Smith, J. E., 1993. *Prinsip Bioteknologi*. Penerbit PT. Gramedia Pustaka Utama. Jakarta.
- Supiandi, J. 1999. Produksi Enzim Kitinase dan Selulase *Trichoderma sp.* Isolat Perkebunan Lada di Lampung. *Skripsi*. FMIPA-UNRI, Pekanbaru.
- Vazquez – Garciduenas, S., Morales, C. A.L., Estralla, A. H. 1998. Analysis of the  $\beta$ -1,3-Glucanolytic system of the Biocontrol Agent. *Trichoderma harzianum*. *J. Appl. Env. Microbiol.* **64**, 1442-1446.
- Watson, J. D., Gilman, M., Witkowski, J dan Zeller, M. 1992. *Recombinant DNA*. 2<sup>nd</sup> ed. WH. Freeman and company, New York.