

DAFTAR PUSTAKA

- Ahmadian, M., Suh, J.M., Hah, N., Liddle, C., Atkins, A.R., Downes, M., dkk., 2013. PPAR γ signaling and metabolism: the good, the bad and the future. *Nature medicine*, **19**: .
- American Diabetes Association, 2015. Classification and Diagnosis of Diabetes. *Diabetes Care*, **38**: S8–S16.
- Anonim, 1979. *Materia Medika Indonesia*, III. ed. Departemen Kesehatan Republik Indonesia, Jakarta.
- Arha, D., Pandeti, S., Mishra, A., Srivastava, S.P., Srivastava, A.K., Narender, T., dkk., 2015. Deoxyandrographolide promotes glucose uptake through glucose transporter-4 translocation to plasma membrane in L6 myotubes and exerts antihyperglycemic effect in vivo. *European Journal of Pharmacology*, **768**: 207–216.
- Arner, P., 2003. The adipocyte in insulin resistance: key molecules and the impact of the thiazolidinediones. *Trends in endocrinology and metabolism: TEM*, **14**: 137–145.
- Asscalbiass, 2011. *Buku Panduan Praktikum Biokimia Kedokteran Blok Hemato Immunologi*. Purwokerto: Laboratorium Biokimia Kedokteran UNSOED.
- Augustine, A.W., Narasimhan, A., Vishwanathan, M., dan Karundevi, B., 2014. Evaluation of antidiabetic property of *Andrographis paniculata* powder in high fat and sucrose-induced type-2 diabetic adult male rat. *Asian Pacific Journal of Tropical Disease*, **4**: S140–S147.
- Backer, C.A., Bakhuizen van den Brink Jr, dan R. C, 1965. *Flora of Java (Spermatophytes Only)*. N.V.P. Noordhoff, Groningen.
- Bailey, C.J., 2007. Treating insulin resistance: future prospects. *Diabetes & Vascular Disease Research*, **4**: 20–31.
- Blas, E., Sivasankara Kurup, A., dan Organization, W.H., 2010. *Equity, Social Determinants and Public Health Programmes*. World Health Organization.
- B POM RI, 2011. *Acuan Sediaan Herbal*, 1st ed. Direktorat Obat Asli Indonesia.
- Chao, W.-W. dan Lin, B.-F., 2010. Isolation and identification of bioactive compounds in *Andrographis paniculata* (Chuanxinlian). *Chinese Medicine*, **5**: 17.
- Dexa Medica, 2019. 'Inlacin' *Dexa Medica*. URL: <https://www.dexa-medica.com/OriginalResearch/Inlacin> (diakses tanggal 7/7/2020).
- Drugbank, 2019. 'Pioglitazone'. URL: <https://www.drugbank.ca/drugs/DB01132> (diakses tanggal 29/8/2019).
- Edvardsson, U., Bergström, M., Alexandersson, M., Bamberg, K., Ljung, B., dan Dahllöf, B., 1999. Rosiglitazone (BRL49653), a PPAR γ -selective agonist, causes peroxisome proliferator-like liver effects in obese mice. *Journal of lipid research*, **40**: 1177–84.
- Egon, S., 1985. *Analisis obat secara Kromatografi dan Mikroskopi*. ITB Bandung.
- Evans, R.M., Barish, G.D., dan Wang, Y.-X., 2004. PPARs and the complex journey to obesity. *Nature Medicine*, **10**: 355–361.

- Fitrawan, L., Ariastuti, R., Tjandrawinata, R.R., Nugroho, A.E., dan Pramono, S., 2018. Antidiabetic effect of combination of fractionated-extracts of *Andrographis paniculata* and *Centella asiatica*: In vitro study. *Asian Pacific Journal of Tropical Biomedicine*, **8**: 527.
- González, E.L.M., Johansson, S., Wallander, M.-A., dan Rodríguez, L.A.G., 2009a. Trends in the prevalence and incidence of diabetes in the UK: 1996-2005. *Journal of Epidemiology and Community Health*, **63**: 332-336.
- González, E.L.M., Johansson, S., Wallander, M.-A., dan Rodríguez, L.A.G., 2009b. Trends in the prevalence and incidence of diabetes in the UK: 1996-2005. *Journal of Epidemiology & Community Health*, **63**: 332-336.
- Gould, G.W. dan Holman, G.D., 1993. The glucose transporter family: structure, function and tissue-specific expression. *Biochemical Journal*, **295**: 329-341.
- Gregoire, F.M., Smas, C.M., dan Sul, H.S., 1998. Understanding adipocyte differentiation. *Physiological Reviews*, **78**: 783-809.
- Guyton AC dan Hall JE., 2006. *Buku Ajar Fisiologi Kedokteran. Edisi 11. Penerjemah: Irawati, Ramadani D, Indriyani F.* Jakarta: Penerbit Buku Kedokteran EGC.
- Hardjono, S., 1985. *Kromatografi*, Cet. 1. ed. Liberty.
- Hasan, M.M., Ahmed, Q.U., Soad, S.Z.M., Latip, J., Taher, M., Syafiq, T.M.F., dkk., 2017. Flavonoids from *Tetracera indica* Merr. induce adipogenesis and exert glucose uptake activities in 3T3-L1 adipocyte cells. *BMC Complementary and Alternative Medicine*, **17**: .
- Hausman, D.B., DiGirolamo, M., Bartness, T.J., Hausman, G.J., dan Martin, R.J., 2001. The biology of white adipocyte proliferation. *Obesity Reviews: An Official Journal of the International Association for the Study of Obesity*, **2**: 239-254.
- Hermawan, W., Nakajima, S., Tsukuda, R., Fujisaki, K., dan Nakasuji, F., 1997. Isolation of an Antifeedant Compound from *Andrographis paniculata* (Acanthaceae) against the Diamondback Moth, *Plutella xylostella* (Lepidoptera: Yponomeutidae). *Applied Entomology and Zoology*, **32**: 551-559.
- Hwang, C.S., Loftus, T.M., Mandrup, S., dan Lane, M.D., 1997. Adipocyte differentiation and leptin expression. *Annual Review of Cell and Developmental Biology*, **13**: 231-259.
- Imanta, E., 2017. Uji Biolarvasida Nyamuk *Aedes aegypti* Dari Hasil Isolasi Ekstrak Metanol Tanaman SambiloTO (*Andrographis paniculata* Ness). *Unesa Journal of Chemistry*, **6**: .
- Karsono, A.H., Tandrasasmita, O.M., dan Tjandrawinata, R.R., 2019. Bioactive fraction from *Lagerstroemia speciosa* leaves (DLBS3733) reduces fat droplet by inhibiting adipogenesis and lipogenesis. *Journal of Experimental Pharmacology*, **11**: 39-51.
- Kennedy, M.S.N., 2012. Pancreatic hormones and antidiabetic drugs. *Basic & Clinical Pharmacology*, 743-765.
- Kido, Y., Nakae, J., dan Accili, D., 2001. The Insulin Receptor and Its Cellular Targets. *The Journal of Clinical Endocrinology & Metabolism*, **86**: 972-979.

- Kulyal, P., Tiwari, U.K., Shukla, A., dan Gaur, A.K., 2010. Chemical constituents isolated from *Andrographis paniculata*. *IJC-B Vol.49B(03) [March 2010]*, .
- Laplante, M., Sell, H., MacNaul, K.L., Richard, D., Berger, J.P., dan Deshaies, Y., 2003. PPAR- γ Activation Mediates Adipose Depot-Specific Effects on Gene Expression and Lipoprotein Lipase Activity: Mechanisms for Modulation of Postprandial Lipemia and Differential Adipose Accretion. *Diabetes*, **52**: 291–299.
- Lefterova, M.I. dan Lazar, M.A., 2009. New developments in adipogenesis. *Trends in endocrinology and metabolism: TEM*, **20**: 107–114.
- Lehmann, J.M., Moore, L.B., Smith-Oliver, T.A., Wilkison, W.O., Willson, T.M., dan Kliewer, S.A., 1995. An antidiabetic thiazolidinedione is a high affinity ligand for peroxisome proliferator-activated receptor gamma (PPAR gamma). *The Journal of Biological Chemistry*, **270**: 12953–12956.
- Leonardini, A., Laviola, L., Perrini, S., Natalicchio, A., dan Giorgino, F., 2009. Cross-Talk between PPAR γ and Insulin Signaling and Modulation of Insulin Sensitivity. *PPAR Research*, **2009**: .
- Lustig, M., Feng, Q., Payan, Y., Gefen, A., dan Benayahu, D., 2019. Noninvasive Continuous Monitoring of Adipocyte Differentiation: From Macro to Micro Scales. *Microscopy and Microanalysis: The Official Journal of Microscopy Society of America, Microbeam Analysis Society, Microscopical Society of Canada*, **25**: 119–128.
- Manaf, A., 2014. Insulin Resistance as a Predictor of Worsening of Glucose Tolerance in Type 2 Diabetes Mellitus, dalam: *Medicinus: Scientific Journal of Pharmaceutical Development and Medical Application*, 2. Dexa Medica, Tangerang, Indonesia.
- Masi, G. dan Oroh, W., 2018. HUBUNGAN OBESITAS DENGAN KEJADIAN DIABETES MELITUS DI WILAYAH KERJA PUSKESMAS RANOMUT KOTA MANADO. *JURNAL KEPERAWATAN*, **6**: .
- Matthaei, S., Stumvoll, M., Kellerer, M., dan Häring, H.U., 2000. Pathophysiology and pharmacological treatment of insulin resistance. *Endocrine Reviews*, **21**: 585–618.
- Michael J. Neal, 2005. *Medical Pharmacology at a Glance Fifth Edition*. Erlangga.
- Murray R.K., Granner D.K., Mayes P.A., dan Rodwell V.W., 2004. 'Harper's Illustrated Biochemistry (twenty seventh edition)'. URL: (diakses tanggal 3/9/2019).
- NCD Risk Factor Collaboration, 2016. Worldwide trends in diabetes since 1980: a pooled analysis of 751 population-based studies with 4.4 million participants. *The Lancet*, **387**: 1513–1530.
- Nelson DL dan Cox MM, 2008. *Lehninger Principles of Biochemistry, 5th Ed*. New York, WH Freeman.
- Nugroho, A.E., Andrie, M., Warditiani, N.K., Siswanto, E., Pramono, S., dan Lukitaningsih, E., 2012. Antidiabetic and antihyperlipidemic effect of *Andrographis paniculata* (Burm. f.) Nees and andrographolide in high-fructose-fat-fed rats. *Indian Journal of Pharmacology*, **44**: 377–381.
- Nugroho, A.E., Malik, A., dan Pramono, S., 2013. 'Total phenolic and flavonoid contents, and in vitro antihypertension activity of purified extract of

- Indonesian cashew leaves (*Anacardium occidentale* L.)', dalam: 20 (1). *Int. Food Res. J.*, hal. 785–789.
- Pratley dan Weyer, 2001. The role of impaired early insulin secretion in the pathogenesis of Type II diabetes mellitus. *Diabetologia*, **44**: 929–945.
- Rashid, P.T., Ahmed, M., Rahaman, M., dan Muhit, A., 2018. 14-Deoxyandrographolide Isolated from *Andrographis paniculata* (Burm. f) Nees Growing in Bangladesh and its Antimicrobial Properties.
- Riskesdas, 2017. 'Riset Kesehatan Dasar (2013-2017) <http://www.depkes.go.id/resources/download/general/Hasil%20Riskas%202013.pdf>'.
- Rosen, E.D. dan Spiegelman, B.M., 2006. Adipocytes as regulators of energy balance and glucose homeostasis. *Nature*, **444**: 847–853.
- Saini, V., 2010. Molecular mechanisms of insulin resistance in type 2 diabetes mellitus. *World Journal of Diabetes*, **1**: 68–75.
- Shaw, J.E., Sicree, R.A., dan Zimmet, P.Z., 2010. Global estimates of the prevalence of diabetes for 2010 and 2030. *Diabetes Research and Clinical Practice*, **87**: 4–14.
- Shaw, Sicree, R.A., dan Zimmet, P.Z., 2010. Global estimates of the prevalence of diabetes for 2010 and 2030. *Diabetes Research and Clinical Practice*, **87**: 4–14.
- Shen, Y., Honma, N., Kobayashi, K., Jia, L.N., Hosono, T., Shindo, K., dkk., 2014. Cinnamon Extract Enhances Glucose Uptake in 3T3-L1 Adipocytes and C2C12 Myocytes by Inducing LKB1-AMP-Activated Protein Kinase Signaling. *PLoS ONE*, **9**: .
- Shepherd, P.R. dan Kahn, B.B., 1999. Glucose transporters and insulin action--implications for insulin resistance and diabetes mellitus. *The New England Journal of Medicine*, **341**: 248–257.
- Sherwood, L., 2014. *Fisiologi Manusia : Dari Sel Ke Sistem*, 8th ed. Jakarta: EGCG.
- Sigma Aldrich, 2020. 'deoxyandrographolide CDS018883' *Sigma-Aldrich*. URL: <https://www.sigmaaldrich.com/catalog/product/aldrich/cds018883> (diakses tanggal 27/7/2020).
- Sihotang, R.C., Ramadhani, R., dan Tahapary, D.L., 2018. Efikasi dan Keamanan Obat Anti Diabetik Oral pada Pasien Diabetes Melitus Tipe 2 dengan Penyakit Ginjal Kronik. *Jurnal Penyakit Dalam Indonesia*, **5**: 150–155.
- Slot, J.W., Moxley, R., Geuze, H.J., dan James, D.E., 1990. No evidence for expression of the insulin-regulatable glucose transporter in endothelial cells. *Nature*, **346**: 369–371.
- Song, Y.-X., Liu, S.-P., Jin, Z., Qin, J.-F., dan Jiang, Z.-Y., 2013. Qualitative and quantitative analysis of *Andrographis paniculata* by rapid resolution liquid chromatography/time-of-flight mass spectrometry. *Molecules (Basel, Switzerland)*, **18**: 12192–12207.
- Spiegelman, B.M., 1998. PPAR-gamma: adipogenic regulator and thiazolidinedione receptor. *Diabetes*, **47**: 507–514.
- Stipanuk, M.H., 2000. *Biochemical and Physiological Aspects of Human Nutrition*, 1 edition. ed. Saunders, Philadelphia.

- Tan, M.L., Kuroyanagi, M., Sulaiman, S.F., Najimudin, N., dan Muhammad, T.S.T., 2005. Cytotoxic Activities of Major Diterpenoid Constituents of *Andrographis paniculata*. in a Panel of Human Tumor Cell Lines. *Pharmaceutical Biology*, **43**: 501–508.
- Tandrasasmita, O.M., Wulan, D.D., Nailufar, F., Sinambela, J., dan Tjandrawinata, R.R., 2011. Glucose-lowering effect of DLBS3233 is mediated through phosphorylation of tyrosine and upregulation of PPAR γ and GLUT4 expression. *International Journal of General Medicine*, **4**: 345–357.
- Vilaró, S., Palacín, M., Pilch, P.F., Testar, X., dan Zorzano, A., 1989. Expression of an insulin-regulatable glucose carrier in muscle and fat endothelial cells. *Nature*, **342**: 798–800.
- Watson, R.T. dan Pessin, J.E., 2001. Intracellular organization of insulin signaling and GLUT4 translocation. *Recent Progress in Hormone Research*, **56**: 175–193.
- Wilcox, G., 2005. Insulin and Insulin Resistance. *Clinical Biochemist Reviews*, **26**: 19–39.
- World Health Organization, 2019. 'Diabetes'. URL: <https://www.who.int/westernpacific/health-topics/diabetes> (diakses tanggal 28/6/2019).
- Youssef, J. dan Badr, M.Z., 2013. PPARs: history and advances. *Methods in Molecular Biology (Clifton, N.J.)*, **952**: 1–6.
- Yu, B.-C., Hung, C.-R., Chen, W.-C., dan Cheng, J.-T., 2003. Antihyperglycemic effect of andrographolide in streptozotocin-induced diabetic rats. *Planta Medica*, **69**: 1075–1079.
- Zhao, L., Gregoire, F., dan Sul, H.S., 2000. Transient induction of ENC-1, a Kelch-related actin-binding protein, is required for adipocyte differentiation. *The Journal of biological chemistry*, **275**: 16845–50.