

## DAFTAR PUSTAKA

- Apostolidis, E., Kwon, Y.I.I. and Shetty, K., 2007, Inhibitory potential of herb, fruit, and fungal-enriched cheese against key enzymes linked to type 2 diabetes and hypertension, *Inn Food Sci Emer Technol*, 8: 46-54.
- Badan POM RI, 2011, *Acuan Sediaan Herbal*, Vol.6, ed.1, Badan Pengawas Obat dan Makanan, Jakarta.
- Badan POM RI, 2010, *Monografi Ekstrak Tumbuhan Obat Indonesia*, Vol. 1, Direktorat Standarisasi Obat Tradisional, Kosmetik dan Produk Komplemen, Badan Pengawas Obat dan Makanan RI.
- Akbarzadeh, A., Norouzian, D., Mehrabi, M.R., Jamshidi, S.H., Farhangi, A., Verdi, A.A., dkk., 2007. Induction of diabetes by streptozotocin in rats. *Indian Journal of Clinical Biochemistry*, **22**: 60–64.
- Apostolidis, E. dan Lee, C.M., 2010. In vitro potential of *Ascophyllum nodosum* phenolic antioxidant-mediated alpha-glucosidase and alpha-amylase inhibition. *Journal of Food Science*, **75**: H97-102.
- Badan POM, 2011. *Acuan Sediaan Herbal*, 1st ed. Badan Pengawas Obat dan Makanan, Jakarta.
- Cazarolli, L.H., Folador, P., Moresco, H.H., Brighente, I.M.C., Pizzolatti, M.G., dan Silva, F.R.M.B., 2009. Stimulatory effect of apigenin-6-C- $\beta$ -l-fucopyranoside on insulin secretion and glycogen synthesis. *European Journal of Medicinal Chemistry*, **44**: 4668–4673.
- Cazarolli, L.H., Pereira, D.F., Kappel, V.D., Folador, P., Figueiredo, M. dos S.R.B., Pizzolatti, M.G., dkk., 2013. Insulin signaling: A potential signaling pathway for the stimulatory effect of kaempferitrin on glucose uptake in skeletal muscle. *European Journal of Pharmacology*, **712**: 1–7.
- Chao, W.-W. dan Lin, B.-F., 2010. Review Isolation and identification of bioactive compounds in *Andrographis paniculata* (Chuanxinlian). *growth*, **10**: 44.
- Chi, T.-C., Liu, I.M., dan Cheng, J.-T., 2000. Less of insulin desensitization in sympathetic nerve terminals from Wistar rats with insulin resistance. *Journal of the Autonomic Nervous System*, **80**: 80–84.
- Constantin, Rodrigo Polimeni, Constantin, Renato Polimeni, Bracht, A., Yamamoto, N.S., Ishii-Iwamoto, E.L., dan Constantin, J., 2014. Molecular mechanisms of citrus flavanones on hepatic gluconeogenesis. *Fitoterapia*, **92**: 148–162.

Departemen Kesehatan Republik Indonesia, 2005. *Pharmaceutical Care Untuk Penyakit Diabetes Mellitus*. Dirjen Bina Kefarmasian dan Alat Kesehatan Depkes RI, Jakarta.

Dipiro, J.T., Talbert, R.L., Yee, G.C., Matzke, G., Wells, B.G., dan Posey, L.M., 2008. *Pharmacotherapy, A Pathophysiologic Approach*, sixth. ed. Mc Graw Hill Companies, USA.

Fang, X.-K., Gao, J., dan Zhu, D.-N., 2008. Kaempferol and quercetin isolated from *Euonymus alatus* improve glucose uptake of 3T3-L1 cells without adipogenesis activity. *Life Sciences*, **82**: 615–622.

Fawzy, G.A., Abdallah, H.M., Marzouk, M.S., Soliman, F.M., dan Sleem, A.A., 2008. Antidiabetic and antioxidant activities of major flavonoids of *Cynanchum acutum* L.(Asclepiadaceae) growing in Egypt. *Zeitschrift für Naturforschung. C, A journal of biosciences*, **63**: 658.

Gandjar, I.G. dan Rohman, A., 2007. *Kimia Farmasi Analisis*. Pustaka Pelajar, Yogyakarta.

Gerald, I.S., 2000. Cellular mechanisms of insulin resistance. *Journal of Clinical Investigation*, **106**: 171–176.

Guilherme, A., Virbasius, J.V., Puri, V., dan Czech, M.P., 2008a. Adipocyte dysfunctions linking obesity to insulin resistance and type 2 diabetes. *Nature reviews. Molecular cell biology*, **9**: 367–377.

Guilherme, A., Virbasius, J.V., Puri, V., dan Czech, M.P., 2008b. Adipocyte dysfunctions linking obesity to insulin resistance and type 2 diabetes. *Nature reviews Molecular cell biology*, **9**: 367.

Guyton, 1997. *Buku Ajar Fisiologi Kedokteran*, IX. ed. Penerbit Buku Kedokteran EGC, Jakarta.

Harborne, J.B., 1987. *Metode Fitokimia*, 2nd ed. Penerbit ITB, Bandung.

Hossain, M.S., Urbi, Z., Sule, A., dan Rahman, K.M.H., 2014. *Andrographis paniculata* (Burm. f.) Wall. ex Nees: A Review of Ethnobotany, Phytochemistry, and Pharmacology. *The Scientific World Journal*, **2014**: 1–28.

Hu, F., Manson, J., Stampfer, M., dan Colditz, G., 2001. Diet, Lifestyle, and the Risk of Type 2 Diabetes Mellitus in Women — NEJM **345**: 790.

Huilan, B., 2011. Icariin reduces mitochondrial oxidative stress injury in diabetic rat hearts. *China Journal of Chinese Materia Medica*, .

Hundal, R.S., Krssak, M., Dufour, S., Laurent, D., Lebon, V., Chandramouli, V., dkk., 2000. Mechanism by which metformin reduces glucose production in type 2 diabetes. *Diabetes*, **49**: 2063–2069.

International Diabetes Federation, 2017. *Diabetes Atlas*, 8th ed.

Koteswara Rao, Y., Vimalamma, G., Venkata Rao, C., dan Tzeng, Y.-M., 2004. Flavonoids and andrographolides from *Andrographis paniculata*. *Phytochemistry*, **65**: 2317–2321.

Kurniawan, H., 2014. 'Uji Aktivitas Hipoglikemik Fraksi Etanol Dan Residu Dekokta Herba Sambiloto (*andrographis Paniculata* (burm.f.) Ness) Melalui Aksi Antioksidan Dan Peningkatan Translokasi Protein Glut-4 Pada Tikus resisten insulin', URL: [http://etd.ugm.ac.id/index.php?mod=review&sub=Review&act=view&typ=html&buku\\_id=71360&obyek\\_id=4&unitid=&jenis\\_id=](http://etd.ugm.ac.id/index.php?mod=review&sub=Review&act=view&typ=html&buku_id=71360&obyek_id=4&unitid=&jenis_id=) (diakses tanggal 6/10/2014).

Kurniawan, H. dan Nugroho, A.E., 2014. 'Uji aktivitas hipoglikemik fraksi etanol dan residu dekokta herba sambiloto (*andrographis paniculata* (burm. F.) Ness) melalui aksi antioksidan dan peningkatan translokasi protein glut-4 pada tikus resisten insulin', , *PhD Thesis*, . Universitas Gadjah Mada.

Lange, J.D., Mc Phee, S., Lingappa, V.R., dan Ganong, W.F., 2000. *Pathophysiology of Disease : An Introduction to Clinical Medicine*, Third. ed. The Mc Graw Hill Companies, United States.

Lê, K.-A., Ith, M., Kreis, R., Faeh, D., Bortolotti, M., Tran, C., dkk., 2009. Fructose overconsumption causes dyslipidemia and ectopic lipid deposition in healthy subjects with and without a family history of type 2 diabetes-. *The American journal of clinical nutrition*, **89**: 1760–1765.

Mahmoud, A.M., Ashour, M.B., Abdel-Moneim, A., dan Ahmed, O.M., 2012. Hesperidin and naringin attenuate hyperglycemia-mediated oxidative stress and proinflammatory cytokine production in high fat fed/streptozotocin-induced type 2 diabetic rats. *Journal of Diabetes and its Complications*, **26**: 483–490.

Mansjoer, A., Iriyanti, K., Savitri, R., Wardhani, I.W., dan Setiowulan, W., 1999. *Kapita Selekta*, 3rd ed. Media Aesculapius FK UI, Jakarta.

Marianne, M., Yuandani, Y., dan Rosnani, R., 2011. Antidiabetic Activity from Ethanol Extract of Kluwih's Leaf (*artocarpus Camansi*). *Jurnal Natural*, **11**:

Markham, K.R., 1988. *Cara Mengidentifikasi Flavonoid*. Penerbit ITB, Bandung.

- Mayur, B., Sancheti, S., Shruti, S., dan Sung-Yum, S., 2010. Antioxidant and-glucosidase inhibitory properties of *Carpesium abrotanoides* L. *Journal of Medicinal Plants Research*, **4**: 1547–1553.
- McClung, J.P., Roneker, C.A., Mu, W., Lisk, D.J., Langlais, P., Liu, F., dkk., 2004. Development of insulin resistance and obesity in mice overexpressing cellular glutathione peroxidase. *Proceedings of the National Academy of Sciences of the United States of America*, **101**: 8852–8857.
- Mohan, S. dan Nandhakumar, L., 2014. Role of various flavonoids: Hypotheses on novel approach to treat diabetes. *Journal of Medical Hypotheses and Ideas*, **8**: 1–6.
- Nugroho, A.E., Andrie, M., Susilowati, R., Nurrochmad, A., Lukitaningsih, E., dan Pramono, S., 2012a. Ethanolic extracts of *A. paniculata* (Burm. f.) nees and its active compound, andrographolide, decrease the expression of glucose transporters (GLUT 4) in high fuctose-fat fed rats. *International Journal of Phytomedicine*, **3**: 486–497.
- Nugroho, A.E., Andrie, M., Warditiani, N.K., Siswanto, E., Pramono, S., dan Lukitaningsih, E., 2012b. Antidiabetic and antihiperlipidemic effect of *Andrographis paniculata* (Burm. f.) Nees and andrographolide in high-fructose-fat-fed rats. *Indian journal of pharmacology*, **44**: 377.
- Nugroho, Agung Endro, Kusumaramdani, G., Widyaninggar, A., Anggoro, D.P., dan Pramono, S., 2014. Antidiabetic effect of combinations of n-hexane insoluble fraction of ethanolic extract of *Andrographis paniculata* with other traditional medicines. *International Food Research Journal*, **21**: 785.
- Nugroho, A. E., Rais, I.R., Setiawan, I., Pratiwi, P.Y., Hadibarata, T., Tegar, M., dkk., 2014. Pancreatic effect of andrographolide isolated from *Andrographis paniculata* (Burm. f.) Nees. *Pakistan journal of biological sciences: PJBS*, **17**: 22–31.
- Portha, B., Levacher, C., Picon, L., dan Rosselin, G., 1974. Diabetogenic Effect of Streptozotocin in the Rat During the Perinatal Period. *Diabetes*, **23**: 889–895.
- Portha, B., Picon, L., dan Rosselin, G., 1979. Chemical diabetes in the adult rat as the spontaneous evolution of neonatal diabetes. *Diabetologia*, **17**: 371–377.
- Puspitasari, A., Pramono, S., Martono, S., dan Widyarini, S., 2016. Optimization of extraction process and dechlorophyllation of ethanolic extract of *Andrographis paniculata* ness **8**: 345–351.
- Rahbani-Nobar, M.E., Rahimi-Pour, A., Rahbani-Nobar, M., Adi-Beig, F., dan Mirhashemi, S.M., 1999. Total antioxidant capacity, superoxide dismutase

and glutathione peroxidase in diabetic patients. *Medical Journal of Islamic Academy of Sciences*, **12**: 109–114.

Reyes, B.A.S., Bautista, N.D., Tanquilut, N.C., Anunciado, R.V., Leung, A.B., Sanchez, G.C., dkk., 2006. Anti-diabetic potentials of *Momordica charantia* and *Andrographis paniculata* and their effects on estrous cyclicity of alloxan-induced diabetic rats. *Journal of Ethnopharmacology*, **105**: 196–200.

Ros Pérez, M. dan Medina-Gómez, G., 2011. Obesity, adipogenesis and insulin resistance. *Endocrinología y Nutrición (English Edition)*, **58**: 360–369.

Sathya, A. dan Siddhuraju, P., 2012. Role of phenolics as antioxidants, biomolecule protectors and as anti-diabetic factors – Evaluation on bark and empty pods of *Acacia auriculiformis*. *Asian Pacific Journal of Tropical Medicine*, **5**: 757–765.

Silva, F.R.M.B., Szpoganicz, B., Pizzolatti, M.G., Willrich, M.A.V., dan de Sousa, E., 2002. Acute Effect of *Bauhinia Forficata* on Serum Glucose Levels in Normal and Alloxan-Induced Diabetic Rats. *Journal of Ethnopharmacology*, **83**: 33–37.

Subramanian, R., Asmawi, M.Z., dan Sadikun, A., 2008. In vitro alpha-glucosidase and alpha-amylase enzyme inhibitory effects of *Andrographis paniculata* extract and andrographolide. *Acta Biochim Pol*, **55**: 391–398.

Subramoniam, A., 2017. *Anti-Diabetes Mellitus Plants: Active Principles, Mechanisms of Action and Sustainable Utilization*. CRC Press, New York.

Sudoyo, A.W., Setiyohadi, B., Alwi, I., Simadibrata, M., dan Setiati, S., 2006. *Buku Ajar Ilmu Penyakit Dalam*, IV. ed, III. Pusat Penerbitan Departemen Ilmu Penyakit Dalam Fakultas Kedokteran Universitas Indonesia, Jakarta.

Syamsul, E.S., Nugroho, A.E., dan Pramono, S., 2011. Aktivitas Antidiabetes Kombinasi Ekstrak Terpurifikasi Herba Sambiloto (*Andrographis paniculata* (Burn. F.) NESS.) dan Metformin pada Tikus DM Tipe 2 Resisten Insulin. *Majalah Obat Tradisional*, **16**: 124–131.

Tappy, L. dan Lê, K.-A., 2010. Metabolic effects of fructose and the worldwide increase in obesity. *Physiological reviews*, **90**: 23–46.

Tjokroprawiro, A., 1996. *Diabetes Mellitus, Klasifikasi, Diagnosis Dan Terapi*, 3rd ed. Gramedia Pustaka, Jakarta.

Wulffele, M.G., Kooy, A., Zeeuw, D. de, Stehouwer, C.D.A., dan Gansevoort, R.T., 2004. The effect of metformin on blood pressure, plasma cholesterol and triglycerides in type 2 diabetes mellitus: a systematic review. *Journal of internal medicine*, **256**: 1–14.



- Xu, J., Li, Z., Cao, M., Zhang, H., Sun, J., Zhao, J., dkk., 2012. Synergetic effect of *Andrographis paniculata* polysaccharide on diabetic nephropathy with andrographolide. *International Journal of Biological Macromolecules*, **51**: 738–742.
- Yabe-Nishimura, C., 1998. Aldose reductase in glucose toxicity: a potential target for the prevention of diabetic complications. *Pharmacological reviews*, **50**: 21–34.
- Yusron, M., 2008. Dukungan Teknologi Budidaya Untuk Pengembangan Sambiloto (*andrographis Paniculata* Nees). *Balittro Litbang Pertanian.go.id*, .
- Yusron, M., Januwati, M., dan Rini Pribadi, E., 2009. *Budidaya Tanaman Sambiloto*. Badan Penelitian dan Pengembangan Pertanian Balai Penelitian Tanaman Obat dan Aromatika, Bogor.
- Zangeneh, F., Kudva, Y.C., dan Basu, A., 2003. 'Insulin sensitizers', , dalam: *Mayo Clinic Proceedings*. Elsevier, hal. 471–479.
- Zavaroni, I., Sander, S., Scott, S., dan Reaven, G.M., 1980. Effect of fructose feeding on insulin secretion and insulin action in the rat. *Metabolism*, **29**: 970–973.