

## DAFTAR PUSTAKA

- Ali Asgar, M. (2013). Anti-diabetic potential of phenolic compounds: A review. Dalam *International Journal of Food Properties* (Vol. 16, Nomor 1, hlm. 91–103). <https://doi.org/10.1080/10942912.2011.595864>
- Al-Ishaq, R. K., Abotaleb, M., Kubatka, P., Kajo, K., & Büsselberg, D. (2019). Flavonoids and their anti-diabetic effects: Cellular mechanisms and effects to improve blood sugar levels. *Biomolecules*, 9(9). <https://doi.org/10.3390/biom9090430>
- Al-Mahmood, S. M., Razak, T. A., Abdullah, S. T., Fatnoon NA, N. N., Mohamed, A. H., & Al-Ani, I. M. (2016). A comprehensive study of chronic diabetes complications in streptozotocin-induced diabetic rat. *Makara Journal of Health Research*, 20(2), 48–56. <https://doi.org/10.7454/msk.v20i2.5889>
- Alqahtani, A. S., Hidayathulla, S., Rehman, M. T., Elgamal, A. A., Al-Massarani, S., Razmovski-Naumovski, V., Alqahtani, M. S., El Dib, R. A., & Alajmi, M. F. (2020). Alpha-amylase and alpha-glucosidase enzyme inhibition and antioxidant potential of 3-oxolupenal and katononic acid isolated from *Nuxia oppositifolia*. *Biomolecules*, 10(1). <https://doi.org/10.3390/biom10010061>
- Ambarsari, L., & Sumaryada, T. I. (2014). Simulasi Docking Senyawa Kurkumin dan Analognya Sebagai Inhibitor Reseptor Androgen pada Kanker Prostat. Dalam *CURRENT BIOCHEMISTRY e-ISSN*.
- Ambarwati, N., Rakhmawati, R., & Wahyuni, D. S. C. W. (2015). Uji toksisitas fraksi daun ambre (*Geranium radula*) terhadap *Artemia salina* dan profil kandungan kimia fraksi teraktif *Toxicity test of ambre leaf fractionation (Geranium radula) against Artemia salina and chemistry compound profile of the most active fraction*. <https://doi.org/10.13057/biofar/f130103>
- Aziz, Z., Yuliana, N. D., Simanjuntak, P., Rafi, M., Mulatsari, E., & Abdillah, S. (2021). Investigation of Yacon Leaves (*Smallanthus sonchifolius*) for  $\alpha$ -Glucosidase Inhibitors Using Metabolomics and In Silico Approach. *Plant*

*foods for human nutrition (Dordrecht, Netherlands)*, 76(4), 487–493.  
<https://doi.org/10.1007/S11130-021-00926-3>

Aziz, Zulhemi. , Djamil, R. , & Abdillah, S. (2019). Identifikasi Senyawa Penghambat Enzim  $\alpha$ -Glukosidase dari Ekstrak Etanol 96% Daun Yakon. *Jurnal Ilmu Kefarmasian Indonesia*.

Banday, M. Z., Sameer, A. S., & Nissar, S. (2020). Pathophysiology of diabetes: An overview. *Avicenna Journal of Medicine*, 10(04), 174–188.  
[https://doi.org/10.4103/ajm.ajm\\_53\\_20](https://doi.org/10.4103/ajm.ajm_53_20)

Baroni, S., da Rocha, B. A., Oliveira de Melo, J., Comar, J. F., Caparroz-Assef, S. M., & Bersani-Amado, C. A. (2016). Hydroethanolic extract of *Smallanthus sonchifolius* leaves improves hyperglycemia of streptozotocin induced neonatal diabetic rats. *Asian Pacific Journal of Tropical Medicine*, 9(5), 432–436. <https://doi.org/10.1016/j.apjtm.2016.03.033>

Carmona-Hernandez, J. C., Taborda-Ocampo, G., & González-Correa, C. H. (2021). Folin-Ciocalteu Reaction Alternatives for Higher Polyphenol Quantitation in Colombian Passion Fruits. *International Journal of Food Science*, 2021. <https://doi.org/10.1155/2021/8871301>

Chen, G., Li, C., & Chen, K. (2016). Fructooligosaccharides: A Review on Their Mechanisms of Action and Effects. *Studies in Natural Products Chemistry*, 48, 209–229. <https://doi.org/10.1016/B978-0-444-63602-7.00006-0>

Coates, J. (2000). *Interpretation of Infrared Spectra, A Practical Approach*.

Da'i, M., Riza Wardani, R., & Saifudin, A. (2020). Isolation and identification of active antioxidant compounds from ethyl acetate fraction of ethanol extract of meniran herb (*Phyllanthus Niruri* L.). Dalam *EurAsian Journal of BioSciences Eurasia J Biosci* (Vol. 14).

Early Febrinda, A., Astawan, M., Wresdiyati, T., & Dewi Yuliana, N. (2013). Kapasitas Antioksidan Dan Inhibitor Alfa Glukosidase Ekstrak Umbi Bawang

Dayak. *Jurnal Teknologi dan Industri Pangan*, 24(2), 161–167.  
<https://doi.org/10.6066/jtip.2013.24.2.161>

Genta, S. B., Cabrera, W. M., Mercado, M. I., Grau, A., Catalán, C. A., & Sánchez, S. S. (2010). Hypoglycemic activity of leaf organic extracts from *Smallanthus sonchifolius*: Constituents of the most active fractions. *Chemico-Biological Interactions*, 185(2), 143–152. <https://doi.org/10.1016/j.cbi.2010.03.004>

Hanefeld, M. (2007). Cardiovascular benefits and safety profile of acarbose therapy in prediabetes and established type 2 diabetes. Dalam *Cardiovascular Diabetology* (Vol. 6). BioMed Central Ltd. <https://doi.org/10.1186/1475-2840-6-20>

Huang, L., Zhu, X., Zhou, S., Cheng, Z., Shi, K., Zhang, C., & Shao, H. (2021). Phthalic acid esters: Natural sources and biological activities. Dalam *Toxins* (Vol. 13, Nomor 7). MDPI AG. <https://doi.org/10.3390/toxins13070495>

Ikrom, D. A. T. R. ., Bintang Perkasa B, Rafika Tiara N, Wasito, & Reni Wira A. (2014). *Studi In Vitro Ekstrak Etanol Daun Kamboja (Plumeria alba) sebagai Anti Aeromonas hydrophila*.

Irianti, T., Ritmaleni, Putri, N., Addina, J., & Farida, S. (2018). Aktivitas Penangkapan Radikal 2-2 Difenil-1-Pikril Hidrazil Ekstrak Etanol Herba Patikan Kebo ( *Euphorbia Hirta* L .), Daun Jati ( *Tectona Grandis* Linn .) Dan Fraksi Air Serta Fraksi Air ( *Tectona Grandis* Linn .) Leaf And Water Fraction With Water. *Jurnal Tumbuhan Obat Indonesia*, 11(1), 1–10.

Kementrian Kesehatan Republik Indonesia. (2020). Tetap Produktif, Cegah Dan Atasi Diabetes Mellitus. Dalam *pusat data dan informasi kementrian kesehatan RI*.

Kusumawati, N., & Indrayudha, P. (2021). *Penghambatan Enzim Alpha-Glukosidase oleh Daun Mimba (Azadirachta indica) dan Rimpang Temu Mangga (Curcuma mangga) Inhibition of Alpha-Glukosidase Enzyme by*

*Neem Leaf (Azadirachta indica) and Mango Ginger (Curcuma mangga).*  
<https://doi.org/10.22>

Lee, B. H., Rose, D. R., Lin, A. H. M., Quezada-Calvillo, R., Nichols, B. L., & Hamaker, B. R. (2016). Contribution of the Individual Small Intestinal  $\alpha$ -Glucosidases to Digestion of Unusual  $\alpha$ -Linked Glycemic Disaccharides. *Journal of Agricultural and Food Chemistry*, 64(33), 6487–6494.  
<https://doi.org/10.1021/acs.jafc.6b01816>

Lin, F., Hasegawa, M., & Kodama, O. (2003). Purification and identification of antimicrobial sesquiterpene lactones from yacon (*Smallanthus sonchifolius*) leaves. *Bioscience, Biotechnology and Biochemistry*, 67(10), 2154–2159.  
<https://doi.org/10.1271/bbb.67.2154>

Malunga, L. N., Eck, P., & Beta, T. (2016). Inhibition of Intestinal  $\alpha$ -Glucosidase and Glucose Absorption by Feruloylated Arabinoxylan Mono- and Oligosaccharides from Corn Bran and Wheat Aleurone. *Journal of Nutrition and Metabolism*, 2016. <https://doi.org/10.1155/2016/1932532>

Meng, X.-Y., Zhang, H.-X., Mezei, M., & Cui, M. (2011). *Molecular Docking: A powerful approach for structure-based drug discovery.*

Nabilah, M. (2020). *Aktivitas Penangkapan Radikal 2,2-Difenil-1-Pikril Hidrazil (Dpph) Ekstrak Etanol, Fraksi Air, Serta Fraksi Air Terhidrolisis Asam Dari Daun Kenikir (Cosmos Caudatus H.B.K).* Universitas Gadjah Mada.

Nagoor Meeran, M. F., Javed, H., Tae, H. Al, Azimullah, S., & Ojha, S. K. (2017). Pharmacological properties and molecular mechanisms of thymol: Prospects for its therapeutic potential and pharmaceutical development. Dalam *Frontiers in Pharmacology* (Vol. 8, Nomor JUN). Frontiers Media S.A.  
<https://doi.org/10.3389/fphar.2017.00380>

Nursanti, O., Wardani, I., & Hadisoebroto, G. (2022). Validasi Penambatan Molekuler (Docking) (*Zingiber Officinale*) dan (*Cymbopogon citratus*)

Sebagai Ligan Aktif Reseptor Ppar $\gamma$ . Dalam *Jurnal Farmasi Higea* (Vol. 14, Nomor 1). <http://tox.charite.de>

Palermo, G., & De Vivo, M. (2015). Computational Chemistry for Drug Discovery. Dalam *Encyclopedia of Nanotechnology* (hlm. 1–15). Springer Netherlands. [https://doi.org/10.1007/978-94-007-6178-0\\_100975-1](https://doi.org/10.1007/978-94-007-6178-0_100975-1)

Pantaleão, S. Q., Philot, E. A., de Resende-Lara, P. T., Lima, A. N., Perahia, D., Miteva, M. A., Scott, A. L., & Honorio, K. M. (2018). Structural dynamics of DPP-4 and its influence on the projection of bioactive ligands. *Molecules*, 23(2). <https://doi.org/10.3390/molecules23020490>

Puentes, N. C. , A. A. A. (2020). Hypoglycaemic Property of Yacon ( *Smallanthus sonchifolius*. *Pharmacogn Rev*, 14(27), 37–44. [https://www.researchgate.net/publication/342151496\\_Hypoglycaemic\\_Property\\_of\\_Yacon\\_Smallanthus\\_sonchifolius\\_Poepp\\_and\\_Hendl\\_H\\_Robinson\\_A\\_Review](https://www.researchgate.net/publication/342151496_Hypoglycaemic_Property_of_Yacon_Smallanthus_sonchifolius_Poepp_and_Hendl_H_Robinson_A_Review)

Purnomo, H. (2019). *Molecular docking paracetamol dan analognya menggunakan plants (protein-ligand ant-system) : Seri kimia medisinal* (Edisi I). Rapha Publishing.

Rabel, F., & Sherma, J. (2017). Review of the state of the art of preparative thin-layer chromatography. Dalam *Journal of Liquid Chromatography and Related Technologies* (Vol. 40, Nomor 4, hlm. 165–176). Taylor and Francis Inc. <https://doi.org/10.1080/10826076.2017.1294081>

Rachmania, R. A., Hariyanti, & Susilawati, D. (2022). Studi Molecular Docking Senyawa Isoflavonoid Dadap Ayam (*Erythrina variegata*) Terhadap Reseptor Plasminogen Sebagai Agen Trombolitik Pada Penyakit Infark Miokard. *Jurnal Jamu Indonesia*.

Rasul, M. G. (2018). Conventional Extraction Methods Use in Medicinal Plants, their Advantages and Disadvantages. Dalam *International Journal of Basic Sciences and Applied Computing*.

- Sabater-Molina, M., Larque, E., Torrella, F., & Zamora, S. (2009). Dietary fructooligosaccharides. *Journal of Physiology & Biochemistry*, 65(3), 315–328.  
<https://xpv.uab.cat/article/,DanaInfo=.aljpnDxvyqwqp3Mq32,SSL+10.1007%2FBF03180584>
- Salazar-Gómez, A., Ontiveros-Rodríguez, J. C., Pablo-Pérez, S. S., Vargas-Díaz, M. E., & Garduño-Siciliano, L. (2020). The potential role of sesquiterpene lactones isolated from medicinal plants in the treatment of the metabolic syndrome – A review. Dalam *South African Journal of Botany* (Vol. 135, hlm. 240–251). Elsevier B.V. <https://doi.org/10.1016/j.sajb.2020.08.020>
- Sari, I. W., Junaidin, J., & Pratiwi, D. (2020). Studi Molecular Docking Senyawa Flavonoid Herba Kumis Kucing (*Orthosiphon stamineus* B.) Pada Reseptor  $\alpha$ -Glukosidase Sebagai Antidiabetes Tipe 2. *Jurnal Farmagazine*, 7(2), 54. <https://doi.org/10.47653/farm.v7i2.194>
- Seo, S.-Y., Sancheti, S., & Sancheti, S. (2009). *Chaenomeles sinensis*: A Potent  $\alpha$ - and  $\beta$ -Glucosidase Inhibitor. *American Journal of Pharmacology and Toxicology*, 4(1), 8–11.
- Serra-Barcellona, C., Habib, N. C., Honoré, S. M., Sánchez, S. S., & Genta, S. B. (2017). Enhydrin Regulates Postprandial Hyperglycemia in Diabetic Rats by Inhibition of  $\alpha$ -Glucosidase Activity. *Plant Foods for Human Nutrition*, 72(2), 156–160. <https://doi.org/10.1007/s11130-017-0600-y>
- Shaefer, C. F., Kushner, P., & Aguilar, R. (2015). User's guide to mechanism of action and clinical use of GLP-1 receptor agonists. *Postgraduate Medicine*, 127(8), 818–826. <https://doi.org/10.1080/00325481.2015.1090295>
- Sugiarna, R., Farhan, N., Rusdi, M., Ikhlas Arsul, M., Farmasi Fakultas Kedokteran dan Ilmu Kesehatan Universitas Islam Negeri Alauddin Makassar, J., Yasin Limpo No, J. H., Sombaopu Kabupaten Gowa, K., Selatan, S., & Prodi Farmasi Fakultas Kedokteran dan Ilmu Kesehatan Universitas Islam Negeri Alauddin Makassar, M. (2019). Kadar Fenolik dan Flavonoid Total Ekstrak

Etanol Daun Anggur (*Vitis vinifera* L) Total Phenolic and Flavonoid Content of Grapevine (*Vitis vinifera* L) Leaves Ethanol Extract. Dalam *J.Pharm.Sci* (Vol. 2, Nomor 2).

Tumiwa, N. N. G., & Manawan, F. (2017). *Aktivitas Antidiabetes Fraksi-Fraksi Ekstrak Daun Yacon (Smallanthus sonchifolius) dan Ekspresi Protein GLUT-4 Jaringan Otot Soleus pada Tikus Resistensi insulin.*

Wettergreen, S. A., Sheth, S., & Malveaux, J. (2016). Effects of the addition of acarbose to insulin and non-insulin regimens in veterans with type 2 diabetes mellitus. *Pharmacy Practice*, 14(4). <https://doi.org/10.18549/PharmPract.2016.04.832>

Widowati, W., Tjokropranoto, R., Wahyudianingsih, R., Tih, F., Sadeli, L., Kusuma, H. S. W., Fuad, N. A., Girsang, E., & Agatha, F. A. (2021). Antidiabetic potential yacon (*Smallanthus sonchifolius* (Poepp.) H. Rob.) leaf extract via antioxidant activities, inhibition of  $\alpha$ -glucosidase,  $\alpha$ -amylase, G-6-Pase by in vitro assay. *Journal of Reports in Pharmaceutical Sciences*, 10(2), 247–255. [https://doi.org/10.4103/jrptps.JRPTPS\\_3\\_21](https://doi.org/10.4103/jrptps.JRPTPS_3_21)

Yin, J., Wu, M., Lin, R., Li, X., Ding, H., Han, L., Yang, W., Song, X., Li, W., Qu, H., Yu, H., & Li, Z. (2021). Application and development trends of gas chromatography–ion mobility spectrometry for traditional Chinese medicine, clinical, food and environmental analysis. *Microchemical Journal*, 168, 106527. <https://doi.org/10.1016/J.MICROC.2021.106527>