

REFERENCES

- Abdollahi, M., & Hosseini, A. (2014). Streptozotocin. *Encyclopedia of Toxicology*, 402–404. doi: 10.1016/b978-0-12-386454-3.01170-2
- Adisakwattana, S., Jiphimai, P., Prutanopajai, P., Chanathong, B., Sapwarobol, S., & Ariyapitipan, T. (2010). Evaluation of α -glucosidase, α -amylase and protein glycation inhibitory activities of edible plants. *International Journal of Food Sciences and Nutrition*, 61(3), 295-305.
- Ashraf, K., Sultan, S., & Adam, A. (2018). *Orthosiphon stamineus Benth* is an Outstanding Food Medicine: Review of Phytochemical and Pharmacological Activities. *Journal of pharmacy & bioallied sciences*, 10(3), 109–118. doi:10.4103/jpbs.JPBS_253_17
- Ahmed, U. S., Junaidi, B., Ali, A. W., Akhter, O., Salahuddin, M., & Akhter, J. (2010). Barriers in initiating insulin therapy in a South Asian Muslim community. *Diabetic Medicine*, 27(2), 169–174. doi: 10.1111/j.1464-5491.2009.02904.x
- Astuti, V. C. Y. (2012). *Pengaruh Pemberian Ekstrak Daun Kumis Kucing (Orthosiphon aristatus) Terhadap Penurunan Kadar Glukosa Darah Tikus Wistar Yang Diinduksi Aloksan* (Doctoral dissertation, Fakultas Kedokteran).
- Aveyard, H. (2014). *Doing a literature review in health and social care A practical guide* (second). Maidenhead: Open University Press.
- Azam, A. A., Pariyani, R., Ismail, I. S., Ismail, A., Khatib, A., Abas, F., & Shaari, K. (2017). Urinary metabolomics study on the protective role of *Orthosiphon stamineus* in Streptozotocin induced diabetes mellitus in rats via 1 H NMR spectroscopy. *BMC complementary and alternative medicine*, 17(1), 278.
- Azizan, N., Mohd Said, S., Zainal Abidin, Z., & Jantan, I. (2017). Composition and Antibacterial Activity of the Essential Oils of *Orthosiphon stamineus Benth* and *Ficus deltoidea Jack* against Pathogenic Oral Bacteria. *Molecules (Basel, Switzerland)*, 22(12), 2135. doi:10.3390/molecules22122135
- Badan POM. (2005). *Mengenal Beberapa Tanaman yang Digunakan sebagai Antidiabetika*. Retrieved from <https://www.pom.go.id/new/view/more/berita/74/Mengenal-Beberapa-Tanaman-yang-Digunakan-sebagai-Antidiabetika.html>
- Bakke, J., & Haj, F. G. (2015). Protein-tyrosine phosphatase 1B substrates and metabolic regulation. *Seminars in cell & developmental biology*, 37, 58–65. <https://doi.org/10.1016/j.semcd.2014.09.020>

- Briyanto, W. R. (2017). *Uji Efek Anti Diabetik Ekstrak Etanol 70% Batang Orthosiphon Stamineus Terhadap Diabetes Melitus Tikus Putih Yang Diinduksi Aloksan* (Doctoral dissertation, Universitas Muhammadiyah Surakarta).
- Ching, S. M., Zakaria, Z. A., Paimin, F., & Jalalian, M. (2013). Complementary alternative medicine use among patients with type 2 diabetes mellitus in the primary care setting: a cross-sectional study in Malaysia. *BMC complementary and alternative medicine*, *13*, 148. doi:10.1186/1472-6882-13-148
- Dār al-Kutub al-‘ilmiyya. (1977). Al Qur’an. Bayrūt.
- Damsud, T., Grace, M. H., Adisakwattana, S., & Phuwapraisirisan, P. (2014). *Orthosiphon A* from the aerial parts of *Orthosiphon aristatus* is putatively responsible for hypoglycemic effect via α -glucosidase inhibition. *Natural product communications*, *9*(5), 1934578X1400900512.
- Dewi, L., Fakhrudin, N., & Nurrochmad, A. (2018). *Pemanfaatan Tanaman Kumis Kucing Sebagai Obat Tradisional*. Retrieved from <http://kanalpengetahuan.farmasi.ugm.ac.id/2018/08/30/pemanfaatan-tanaman-kumis-kucing-sebagai-obat-tradisional-2/>
- Disbun Jawa Barat. (2017). *Kumis Kucing*. Retrieved from <http://disbun.jabarprov.go.id/page/view/73-id-kumis-kucing>.
- Fauzan, I. H. Uji Efek Ekstrak Etanol 70% Daun Kumis Kucing.
- Gupta, R. C., Chang, D., Nammi, S., Bensoussan, A., Bilinski, K., & Roufogalis, B. D. (2016). Interactions between antidiabetic drugs and herbs: an overview of mechanisms of action and clinical implications. *Diabetology & Metabolic Syndrome*. doi: <https://doi.org/10.1186/s13098-017-0254-9>
- Hasanuddin, & Kusyanti. (2016). *Jenis Tumbuhan Sebagai Obat Penyakit Diabetes Mellitus Pada Masyarakat Rundeng Kota Subussalam*. Retrieved from <https://jurnal.arraniry.ac.id/index.php/PBiotik/article/download/2536/1800>
- Hedrich, H. J. (2012). *The laboratory mouse*. London: Academic Press.
- Hossain, M. A., & Rahman, S. M. (2015). Isolation and characterisation of flavonoids from the leaves of medicinal plant *Orthosiphon stamineus*. *Arabian Journal of Chemistry*, *8*(2), 218–221. doi: 10.1016/j.arabjc.2011.06.016
- Hunaefi, D., Yuliana, N. D., Smetanska, I., & Gruda, N. (2018, November). Effect of ultraviolet and ultrasonic on potential antidiabetic activity of *in-vitro* shoot

- cultures of *Orthosiphon aristatus*. In *IOP Conference Series: Earth and Environmental Science* (Vol. 207, No. 1, p. 012008). IOP Publishing.
- Indariani, S., Wijaya, C. H., Rahminiwati, M., & Winarno, M. W. (2014). Antihyperglycemic activity of functional drinks based on Java Tea (*Orthosiphon aristatus*) in streptozotocin induced diabetic mice. *International Food Research Journal*, 21(1), 349.
- International Diabetes Federation. (2017). *IDF Diabetes Atlas Eighth edition 2017*. Retrieved from <https://idf.org/component/attachments/attachments.html?id=1405&task=download>
- Ismawaty, N. N., Tarmizi, A. S., Hasmah, E. E., & Nahar, N. E. (2013). Enhancement of phytochemical contents in cold stored fresh Misai kucing (*Orthosiphon stamineus Benth*) by prolonged storage in dried form. *Acta horticulturae*, , 1499-1505.
- Jeon, Y.-H., & Choi, S.-W. (2019). Isolation, Identification, and Quantification of Tyrosinase and α -Glucosidase Inhibitors from UVC-Irradiated Mulberry (*Morus alba L.*) Leaves. *Preventive Nutrition and Food Science*, 24(1), 84–94. doi: 10.3746/pnf.2019.24.1.84
- Joanna Briggs Institute. (2014). *Joanna Briggs Institute Reviewers' Manual: 2014 edition / Supplement*. Retrieved from <http://joannabriggs-webdev.org/assets/docs/sumari/ReviewersManual-2014-Summary-of-Findings-Tables.pdf>
- Joanna Briggs Institute. (2017). *Critical Appraisal Tools*. Retrieved from <http://joannabriggs-webdev.org/research/critical-appraisal-tools.html>
- Juliani., Yuliana, N. D., Budijanto, S., Wijaya, C. H., & Khatib, A. (2016). Senyawa inhibitor α -glukosidase dan antioksidan dari kumis kucing dengan pendekatan metabolomik berbasis FTIR. *Jurnal Teknologi dan Industri Pangan*, 27(1), 17-30.
- Thuan, H. D., Hung, N. P., & Trung, V. Q. (2018). Methoxyflavones from *Orthosiphon stamineus Benth.* and their PTP1B Inhibitory Activities. *Vietnam Journal of Science and Technology*, 56(4A), 146-152.
- Kameswaran, R., Sarah, Y., & Sambath, R. K. (2014). *Review of non-pharmacological treatments for type 2 diabetes mellitus*. Retrieved from http://www.ijrpp.com/sites/default/files/articles/IJRPP_14_417_kameswaran.pdf

- Kardinan, A., & Ruhayat, A. (2003). Kumis Kucing (*Orthosiphon stamineus benth*). *Budi Daya Tanaman Obat Secara Organik* (pp. 42–44). Depok, Indonesia: Agromedia Pustaka
- Keng, C. L., & Siong, L. P. (2006). Morphological Similarities and Differences between the Two Varieties of Cat`s Whiskers (*Orthosiphon stamineus Benth.*) grown in Malaysia. *International Journal of Botany*, 2(1), 1–6. doi: 10.3923/ijb.2006.1.6
- Lee, H. J., Choi, Y. J., Park, S. Y., Kim, J. Y., Won, K. C., Son, J. K., & Kim, Y. W. (2015). Hexane extract of *Orthosiphon stamineus* induces insulin expression and prevents glucotoxicity in INS-1 cells. *Diabetes & metabolism journal*, 39(1), 51-58.
- Lenzen, S. (2008). The mechanisms of alloxan-and streptozotocin-induced diabetes. *Diabetologia*, 51(2), 216-226.
- Lokman, E. F., Saparuddin, F., Muhammad, H., Omar, M. H., & Zulkapli, A. (2019). *Orthosiphon stamineus* as a potential antidiabetic drug in maternal hyperglycemia in streptozotocin-induced diabetic rats. *Integrative Medicine Research*, 8(3), 173–179. doi: 10.1016/j.imr.2019.05.006
- Ministry of Health Republic of Indonesia. (2010). *Guidelines for the use of herbal medicines in family health care* (6th ed.). Retrieved from http://www.searo.who.int/entity/medicines/topics/guidelines_for_the_use_of_herbal_medicine_ministry_of_health.pdf?ua=1
- Ministry of Health Republic of Indonesia. (2013). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 88 Tahun 2013 Tentang Rencana Induk Pengembangan Bahan Baku Obat Tradisional*.
- Ministry of Health Republic of Indonesia. (2016). *Menkes: Mari Kita Cegah Diabetes Dengan Cerdik*. Retrieved from <https://www.depkes.go.id/article/print/16040700002/menkes-mari-kita-cegah-diabetes-dengan-cerdik.html>
- Ministry of Health Republic of Indonesia. (2019). *Kemenkes Dorong Pengembangan Industri Obat Tradisional*. Retrieved from <https://www.depkes.go.id/article/view/19082100002/kemenkes-dorong-pengembangan-industri-obat-tradisional.html>
- Mohamed, E. A. H., Mohamed, A. J., Asmawi, M., Sadikun, A., Ebrika, O. S., & Yam, M. F. (2011). Antihyperglycemic effect of *Orthosiphon stamineus benth* leaves extract and its bioassay-guided fractions. *Molecules*, 16(5), 3787-3801.

- Mohamed, E. A. H., Siddiqui, M. J. A., Ang, L. F., Sadikun, A., Chan, S. H., Tan, S. C., ... & Yam, M. F. (2012). Potent α -glucosidase and α -amylase inhibitory activities of standardized 50% ethanolic extracts and sinensetin from *Orthosiphon stamineus Benth* as anti-diabetic mechanism. *BMC Complementary and Alternative Medicine*, 12(1), 176.
- Mohamed, E. A. H., Yam, M. F., Ang, L. F., Mohamed, A. J., & Asmawi, M. Z. (2013). Antidiabetic Properties and Mechanism of Action of *Orthosiphon stamineus Benth* Bioactive Sub-Fraction in Streptozocotin-induced Diabetic Rats. *Journal of Acupuncture and Meridian Studies*, 6(1), 31-40. doi : 10.1016/j.jams.2013.01.005
- Mohamed, E. A., Ahmad, M., Ang, L. F., Asmawi, M., & Yam, M. F. (2015). Evaluation of α -glucosidase inhibitory effect of 50% ethanolic standardized extract of *Orthosiphon stamineus benth* in normal and streptozotocin-induced diabetic rats. *Evidence-Based Complementary and Alternative Medicine*, 2015.
- Mongkhonsin, B., Nakbanpote, W., Meesungnoen, O., & Prasad, M. N. V. (2019). Adaptive and Tolerance Mechanisms in Herbaceous Plants Exposed to Cadmium. *Cadmium Toxicity and Tolerance in Plants*, 73–109. doi: 10.1016/b978-0-12-814864-8.00004-8
- National Academies of Sciences, Engineering, and Medicine. (2019). Reproducibility and Replicability in Science. *Washington, DC: The National Academies Press*. <https://doi.org/10.17226/25303>. <https://www.nap.edu/read/25303/chapter/1#ii>
- Nguyen, P. H., Tuan, H. N., Hoang, D. T., Vu, Q. T., Pham, M. Q., Tran, M. H., & To, D. C. (2019). Glucose Uptake Stimulatory and PTP1B Inhibitory Activities of Pimarane Diterpenes from *Orthosiphon stamineus Benth*. *Biomolecules*, 9(12), 859.
- Patel, K. (2018). “*Orthosiphon stamineus* Supplement - Health Benefits, Dosage, Side Effects.” *Examine.com*, [examine.com/supplements/orthosiphon-stamineus/](https://www.examine.com/supplements/orthosiphon-stamineus/).
- PRISMA. (2009). *PRISMA Flow Diagram*. Retrieved from <http://prisma-statement.org/PRISMAStatement/FlowDiagram.aspx>
- Qureshi, B. (2002). Diabetes in Ramadan. *Journal of the Royal Society of Medicine*, 95(10), 489–490. doi: 10.1177/014107680209501003
- Rathbone, J., Carter, M., Hoffmann, T., & Glasziou, P. (2015). Better duplicate detection for systematic reviewers: evaluation of Systematic Review Assistant-Deduplication Module. *Systematic Reviews*, 4(1). Doi: 10.1186/2046-4053-4-6

- Resnik, D. B. (2015). What is Ethics in Research & Why is it Important?
Retrieved from
<https://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm>
- Retinasamy, T., Shaikh, M. F., Kumari, Y., & Othman, I. (2019). Ethanolic Extract of *Orthosiphon stamineus* Improves Memory in Scopolamine-Induced Amnesia Model. *Frontiers in pharmacology*, 10, 1216. doi:10.3389/fphar.2019.01216
- Richards, D. (2008). Hand searching still a valuable element of the systematic review. *Evidence-Based Dentistry*, 9(3), 85–85. doi: 10.1038/sj.ebd.6400602
- Rebolledo, J. A., & Arellano, R. (2016). Cultural Differences and Considerations When Initiating Insulin: TABLE 1. *Diabetes Spectrum*, 29(3), 185–190. doi: 10.2337/diaspect.29.3.185
- RxList. (2019). Java Tea: Health Benefits, Uses, Side Effects, Dosage & Interactions. Retrieved from https://www.rxlist.com/java_tea/supplements.htm
- Saputri, M. E. (2017). *Uji Efek Ekstrak Etanol 70% Akar Kumis Kucing (Orthosiphon stamineus) Terhadap Kadar Glukosa Darah Tikus Putih Jantan Galur Wistar (Rattus norvegicus) Yang Diinduksi Aloksan* (Doctoral dissertation, Universitas Muhammadiyah Surakarta).
- Sarian, M. N., Ahmed, Q. U., So'Ad, S. Z. M., Alhassan, A. M., Murugesu, S., Perumal, V., ... Latip, J. (2017). Antioxidant and Antidiabetic Effects of Flavonoids: A Structure-Activity Relationship Based Study. *BioMed Research International*, 2017, 1–14. doi: 10.1155/2017/8386065
- Sarshar, S., Brandt, S., Karam, M. A., Habibi, M., Bouzari, S., Lechtenberg, M., ... Hensel, A. (2017). Aqueous extract from *Orthosiphon stamineus* leaves prevents bladder and kidney infection in mice. *Phytomedicine*, 28, 1–9. doi: 10.1016/j.phymed.2017.02.009
- Setiawan, E. (2012). Kamus Besar Bahasa Indonesia (KBBI). Retrieved from <https://kbbi.web.id/haram>
- Shuster, E. (1997). Fifty years later: the significance of the Nuremberg Code. Boston, MA: *Massachusetts Medical Society*
- Singh, M. K., Dhongade, H., & Tripathi, D. K. (2017). *Orthosiphon pallidus*, a Potential Treatment for Patients with Breast Cancer. *Journal of pharmacopuncture*, 20(4), 265–273. doi:10.3831/KPI.2017.20.032

- Sudan Journal of Rational Use of Medicine. (2014). *Patients' Adherence - WHO*. Retrieved from <http://apps.who.int/medicinedocs/documents/s22198en/s22198en.pdf>
- Sumekar, D. W., & Barawa, A. T. P. (2016). *Orthosiphon stamineus* sebagai Terapi Herbal Diabetes Melitus . *Medical Journal of Lampung University*, 5, 28–32. Retrieved from <https://tixpdf.com/majority-issn-medical-journal-of-lampung-university-volume-5.html>
- Sumithira, G., & Kumar, G. S. (2019) *In-vitro* Preliminary Phytochemical Analysis and Pharmacological Screening for Antioxidants and Anti-diabetic Potentials of *Orthosiphon Glabratus Benth* Leaf in different solvent fractions. *World Health*, 2025(7), 8.
- Tabana, Y. M., Al-Suede, F. S., Ahamed, M. B., Dahham, S. S., Hassan, L. E., Khalilpour, S., ... Majid, A. M. (2016). Cat's whiskers (*Orthosiphon stamineus*) tea modulates arthritis pathogenesis via the angiogenesis and inflammatory cascade. *BMC complementary and alternative medicine*, 16(1), 480. doi:10.1186/s12906-016-1467-4
- Torraco, R. J. (2016). Writing Integrative Literature Reviews. *Human Resource Development Review*, 15(4), 404–428. doi: 10.1177/1534484316671606
- Tsang , M. W. (2012). The management of type 2 diabetic patients with hypoglycaemic agents. *ISRN endocrinology*, 2012, 478120. doi:10.5402/2012/478120
- UNESCO. (2016). *Showcasing of Indonesian Culture In Foreign Countries*. Retrieved from <https://en.unesco.org/creativity/policy-monitoring-platform/showcasing-indonesian-culture>
- Wager, E., & Wiffen, P. J. (2011). Ethical issues in preparing and publishing systematic reviews. *Journal of Evidence-Based Medicine*, 4(2), 130–134. doi: 10.1111/j.1756-5391.2011.01122.x
- WHO. (2017). *Addressing Asia's fast growing diabetes epidemic*. Retrieved from <https://www.who.int/bulletin/volumes/95/8/17-020817/en/>
- WHO. (2018). *Diabetes*. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/diabetes>
- Yam, M. F., Lim, V., Salman, I. M., Ameer, O. Z., Ang, L. F., Rosidah, N., ... Asmawi, M. Z. (2010). HPLC and anti-inflammatory studies of the flavonoid rich chloroform extract fraction of *Orthosiphon stamineus* leaves. *Molecules* (Basel, Switzerland), 15(6), 4452–4466. doi:10.3390/molecules15064452