

DAFTAR PUSTAKA

- Agnihotri, S. A., Mallikarjuna, N. N. and Aminabhavi, T. M. 2004. Recent advances on chitosan-based micro- and nanoparticles in drug delivery. *Journal of Controlled Release*, Vol. 100 No. 1, pp. 5–28
- AN Patil, DM Shinkar, RB Saudagar. 2017. Review article: Solubility enhancement by solid dispersion. *Int J Curr Pharm Res* page 15-18.
- Arifin, W,N., dan Zahiruddin, W,M. 2017. Sample Size Calculation in Animal Studies using resourch equation approach. *Malaya J Med Sci*, Vol 24 No 5 P101-105.
- Anonim. 2013. Guidance For Industry Bioanalytical Method Validation. *Draft Guidance*. U.S. Departement Of Health and Human Service.
- Anonim. 2017. **USP 41: United States Pharmacopeia Chapter 1225**. Rocville: United States Pharmacopeial Convention.
- Basmal J., A. Prasetyo dan Y. N. Fawzya. 2005. Pengaruh konsentrasi asam monokloro asetat dalam proses karboksimetil kitosan terhadap karboksimetil kitosan yang dihasilkan. *Jurnal Penelitian Perikanan Indonesia*, Vol 11.
- Bothiraja,C., Shinde , M.B., Rajalaksmi, S., Pawar,A.P. 2009. Evaluation of molecular pharmaceuticals and *in vivo* properties of spray dried isolated andrografolide-PVP. Vol 61 P1465-1472.
- Budipramana, Krisyanti. 2009. Penentuan Parameter Ketersediaan Hayati Andrografolida dan Kurkumin dari Campuran Ekstrak Herba Sambiloto (*Andrographis paniculata* Nees) dari Rimpang Kunyit (*Curcuma domestica* Val) dalam serum

kelinci menggunakan HPLC. *Skripsi* : Fakultas Farmasi Universitas Airlangga, Surabaya.

- BPOM RI. 2014. Pedoman uji toksisitas non-klinik secara invivo. Jakarta: Keputusan Kepala Badan Pengawas Obat dan Makanan Republik Indonesia.
- Departemen Kesehatan Republik Indonesia. 2014. *Farmakope Indonesia Edisi V*. Departemen Kesehatan Republik Indonesia.
- Gandjar, I.G., Rohman. A. 2014. *Kimia Farmasi Analisis*. Yogyakarta : Pustaka pelajar.
- Gurunant, Surampali., Kumar,Sabbani Pradeep., Basavaraj, Nanjwade K.,Patil Paragoud A. 2013. Amorphous solid dispersion method for improving oral bioavailability of poorly water-soluble drugs.*Journal Of Pharmacy Research* Volume 6 P.476-480..
- Harmita. 2004. Petunjuk Pelaksanaan Validasi Metode dan Cara Perhitungannya. *Majalah Ilmu Kefarmasian*. Vol. 1, No. 3. Hal 117-135.
- Hume CW.1972. *The UFAW on The Care and Management of Laboratory Animals*. 4th ed. Edinburgh & London: E & S Livingstone Limited- Longman Group Limited.
- Janssens, S. and Van den Mooter, G. 2009. Review: physical chemistry of solid dispersions.*Journal of Pharmacy and Pharmacology*, Vol. 61 No. 12, pp. 1571–1586.
- Jayakumar R, Prabakaran M., Nair S.V., Tokura S., Tamura H., Selvamurugan N. 2010. Novel carboxymethyl derivatives of chitin and chitosan materials and their biomedical applications. Progress in *Material Science*, Vol. 55, p 675-709.
- K. Ren, Z. Zhang, Y. Li, J. Lui, D. Zhao, Y. Zhao, T. Gong. 2009. Physicochemical characteristics and oral bioavailability of andrographolide complexed with hydroxypropyl-β-cyclodextrin. *Pharmazie* 64 page 515–520.

- Kumoro, A. C dan Hasan M. 2007. Supercritical carbon dioxide extraction Of Andrographolide from *Andrographis paniculata* : effect of the solvent flow rate, pressure and temperatur. **Chinese Journal of Chemical Engineering** Vol.15 No 6 P 887-833.
- Liu, Peng. 2013. Nanocrystal Formulation For Poorly Soluble Drugs. **Tesis**: Faculty of Pharmacy, University of Helsinki.
- Mourya V.K.,N Imandar and A Tiwarki. 2010. Carboxymethyl chitosan and Its Application, **Advanced Materials Letters**, Vol 1 11-33.
- Müller, R. H., Jacobs, C.and Kayser, O. 2001. Nanosuspensions as particulate drug formulations in therapy: Rationale for development and what we can expect for the future. **Advanced Drug Delivery Reviews**, Vol. 47 No. 1, pp. 3–19.
- Nafiis, Mawaddah Minnati. 2018. Pengaruh Jumlah Karboksimetil-Kitosan Terhadap Karakteristik Fisik Dan Laju Disolusi Sistem Dispersi Padat Andrographolida-Karboksimetil Kitosan Dengan Metode Pelarutan Dan Pengeringan Semprot. **Skripsi** : Fakultas Farmasi Universitas Airlangga, Surabaya.
- Panossian, A. Hovhannisyanyan, G. Mamikonyan, H. Abrahamian, E. Hambarzumyan, E. Gabrielian, G. Goukasova, G. Wikman, H. Wagner. 2000. Pharmacokinetic and oral bioavailability of andrographolide from *Andrographis paniculata* fixed combination Kan Jang in rats and human, **Phytomedicine** 7 page 351–364.
- Paudel A. *et al.* 2013. Manufacturing of Solid Dispersions of Poorly Water Soluble Drugs by Spray Drying: Formulation and Process Considerations, **International Journal of Pharmaceutics**. Elsevier B.V., Vol. 453, Issue 1, pp. 253–284.
- Rahman ANNN, Furuta T, Kojima S, 1999. Antimalarial Activity of Malaysian Medical Plants. **J. Of Ethnopharmacology** 64, p. 249-254.

- Ré, M.-I. 2006. Formulating Drug Delivery Systems by Spray Drying, *Drying Technology*, Vol. 24 No. 4, pp. 433–446.
- Reyes BA, Bautista ND, Tanquilut NC, Anunciado RV, Leung AB, Sanchez GC. 2006. Antidiabetic potentials of *Momordica charantia* and *Andrographis paniculata* and their effects on estrous cyclicity of alloxan induced diabetic rats, *J Ethnopharmacol* 105., 196-200.
- Ridwan, Endi. 2013. Etika pemanfaatan hewan percobaan dalam penelitian kesehatan. *Jurnal Indonesia medical Association* Volume 63.
- Sari, Retno., Widyawaruyanti, Aty., Anindita, F.B.T., Astuti, S.k., Setyawan, Dwi. 2018. Development of Andrografolide-Carboxymethyl Citosan Nanoparticles: Characterization, *in vitro release* and *in vivo* antimalarial. Activity Study. *Turk J Pharm Sci.*, Vol 15 No.2 PP. 136-141.
- Shargel, L., Wu-Pong, S., Yu, A.B.C. 2012. *Biofarmasetika dan Farmakokinetika Terapan Edisi Kelima*. Surabaya: Airlangga University Press, p. 453-461.
- Singh A.and Mooter, G. Van Den. 2016. Spray Drying Formulation of Amorphous Solid Dispersions. *Advanced Drug Delivery Reviews*. Elsevier B.V., Vol. 100, pp. 27–50.
- Suyanto, 1995, Uji Aktivitas Antimalaria secara In Vitro Isolat *Andrographis paniculata* Nees, *Skripsi*: Fakultas Farmasi Universitas Airlangga, Surabaya.
- Syukri, Yandi., Widarsono., Adewiyah., Wibowo., Martien, Lukitaningsih, Nugroho. 2017. Development and Validation of a Simple HPLC-UV Method for the Quantification of Andrografolide In Rabbit Plasma. *Journal Of Drug Delivery Science and Tehcnology* P 22-26.
- Syukri, Yandi., Martien, Ronny., Lukitaningsih, Endang., Nugroho, Agung Hendro. 2018. Novel Self-Nano Emulsifying Drug Delivery System (SNEDDS) of andrographolide isolated

from *Andrographis paniculata* Nees: Characterization, in-vitro and in-vivo assessment. *Journal Of Drug Delivery Science and Tehcnology* 47 P 514-520.

USP. 2005. *The United Pharmacopeia, 28/ The National Formulary*, NF . Rockville, MD: U.S. Pharmacopeial Convention, Inc.

USP. 2014. *The United Pharmacopeia 37 / The National Formulary 32*. Rockville, MD: U.S. Pharmacopeial Convention, Inc.

Vasconcelos T., Sarmiento, B. and Costa, P. 2007. Solid Dispersions as Strategy to Improve Oral Bioavailability of Poor Water Soluble Drugs. *Drug Discovery Today*, Vol. 12, Issue 23–24, pp. 1068–1075.

Xue X, Li L, He J. 2009. The performance of carboxymethyl chitosan in wash-off reactive dyeing. *Carbohydr Polym.* 75: 203 – 207.

Widyawaruyanti A., 2001, Uji Aktivitas Antimalaria dari Senyawa Diterpena laktone hasil Isolasi *Andrographis paniculata* Nees. Laporan Penelitian Project Grand-QUE Project Tahun 2000, Fakultas Farmasi Unair.

Widyawaruyanti A., Ekasari W, Sukardiman, Studiawan H, Rakhmawati, 1995, Uji Antimalaria Ekstrak Herba Sambiloto Terhadap Plasmodium falciparum Secara In Vitro, Laporan Penelitian DIP OPF Unair 1994-1995, Lembaga Penelitian Unair.

Widyawaruyanti A., Ashori Muhammad., Ekasari W., Setiawan Dwi., Radjaram Ahmad., Tumewu Lidya., Hafid Ahmad Fuad. 2014. In vivo Antimalarial Activity of *Andrographis paniculata* Tablets. *Procedia Chemistry* 100 P.101-104.

Wijayanti A, 2001, Uji Toksisitas Akut Ekstrak Metanol Terstandar *Andrographis Paniculata* Nees Pada Mencit, *Skripsi* : Fakultas Farmasi Universitas Airlangga, Surabaya.

- Ye, Ling. *et al.* 2011. Poor Oral Bioavailability Of A Promising Anticancer Agent Andrographolide Is Due To Extensive Metabolism And Efflux By P-Glycoprotein. *Journal of Pharmaceutical Science*, Vol. 100, pp. 5007-5017.
- Y. Zhang, X. Hu, X. Liu, D. Yu, D. Di, T. Yin, S. Zhang, X. Tang,. 2015. Dry statemicrocrystals stabilized by an HPMC film to improve the bioavailability of andrographolide, *Int. J.Pharm.* 493 page 214–223.
- Yuwono, M., Indrayanto, G., 2005. Validation of Chromatographic Method of Analysis. Profiles of Drug Substances, Excipients, and Related Methodology , Vol. 32, p. 243-259.
- Zhang L, Guo J, Zhou J, Yang G, Du Y. 2000. Blend membranes from carboxymethylated chitosan/alginate in aqueous solution. *J Appl Polym Sci.* 77: 610 – 616.
- Zhao, Qi., Ding, Jie., Jin, Haiyan., Ding, Lan., Ren, Nanqi. 2013. A Green Method Using a Miellar System For Determination of Andrographolide and Dehydroandrographolide in Human Plasma. *Journal Of Chromatographis Science.* P 341-348