

## DAFTAR PUSTAKA

- Adan, A., Kiraz, Y and Baran, Y. 2016. Cell Proliferation and Cytotoxicity Assays. *Current Pharmaceutical Biotechnology*. 17(14): 1213-1221.
- Adrina, S. 2018. Pengaruh Ekstrak Etanolik Kulit Buah Mete (*Anacardium occidentale* L.) Terhadap Kadar Hormon Estradiol Serta Fungsi Fisiologis Hati dan Ginjal Tikus (*Rattus novergicus* Berkenhout, 1769). *Skripsi*. Biologi Universitas Gadjah Mada. Yogyakarta.
- Agustini, D., Pramana, A., dan Oktavianie, D.A. 2012. Ekspresi *Tumor Necrosis Factor* (TNF- $\alpha$ ) dan *Inducible Nitric Oxide Synthase* (iNOS) Pada Tikus (*Rattus novergicus*) Hasil Induksi Tiroglobulin Kambing (CTg) Sebagai Upaya Optimasi Hewan Model *Autoimmune Thyroiditis* (AITD). *Tesis*. Fakultas Kedokteran Hewan Universitas Brawijaya.
- Aktan, F. 2004. iNOS-mediated Nitric Oxide Production and Its Regulation. *Life Science*. 75(6):639-653.
- Ammerman, N.C., Beier-Sexton, M and Azad, A.F. 2009. *Growth and Maintenance of Vero Cell Lines*. *Current Protocol Microbiology*.
- Anand, R and Nair. B.P. 2017. Anacardic Acid And Cardanol: Prospective Applications for Cancer Therapy, Drug Delivery, and Imaging. *Springer International Publishing*. 145-161.
- Anggard, E. 1994. Nitric Oxide: Mediator, Murder and Medicine. *The Lancet*. 343(8907): 1199-1206.
- Anonim. 2016. *Statistik Perkebunan Indonesia Jambu Mete 2015-2017*. Kementerian Pertanian. Jakarta.
- Antiabong, J.F., Ngoepe, M.G and Abechi, A.S. 2016. Semi-quantitative Digital Analysis of Polymerase Chain Reaction Electrophoresis Gel: Potential Applications in Low-income Veterinary Laboratories. *Veterrinary World*. 9: 935-939.
- Antosova, M., Plevkova, J., Straokova, A and Buday T. 2012. Nitric Oxide-Important Messenger in Human Body. *Journal of Molecular and Integrative Physiology*. 2: 98-106.
- Arulselvan, P., Fard, M.T., Tan, W.S., Gothai, S., Fakurazi, S., Norhaizan, M.E and Kumar, S.S. 2016. Review Article: Role of Antioxidants and Natural Products in Inflammation. *Oxifative Medicine and Cellular Longevity*. 1-15.

- Ashraf, S.M and Rathinasamy, K. 2017. Antibacterial and Anticancer Activity of the Purified Cashew Nut Shell Liquid: Implications in Cancer Chemotherapy and Wound Healing. *Natural Product Research*. 11(10): 1-6.
- Ayala, A., Muñoz, M.F and Argüelles. 2014. Lipid Peroxidation: Production, Metabolism, and Signaling Mechanisms of Malondialdehyde and 4-hydroxy-2-Nonenal. *Oxidative Medicine and Cellular Longevity*. 122: 1-31.
- Balasubramanyam, K., Swaminathan, V., Ranganathan, A and Kundu, T.K. 2003. Small Molecule Modulators of Histone Acetyltransferase p300. *The Journal of Biological Chemistry*. 278(21): 19134-19140.
- Baratawidjaja. 2002. *Imunologi Dasar*. Fakultas Kedokteran UI. Jakarta.
- Bellik, Y., Bourkraâ, L., Alzahrani, H.A., Bakhotmah, B.A., Abdellah, F., Hammoudi, S.M and Iguer-Ouada, M. 2013. Molecular Mechanism Underlying Anti-Inflammatory and Anti-Allergic Activities of Phytochemicals: An Update. *Molecules*. 18: 322-353.
- Bernardes, N.R., Heggdorne-araujo, M., Borges, I.F.J.C., Almeida, F.M., Amaral, E.P., Lasunskai, E.B., Muzitano, M.F and Oliveira, D.B. 2014. Nitric Oxide Production, Inhibitory, Antioxidant and Antimicrobial Activities of The Fruits Extract and Flavonoid Content of Schinus Terebinthifolius. *Brazilian Journal of Pharmacognosy*. 24: 644-650.
- Chan, S.M., Khoo, K.S and Sit N.M. 2015. Interaction Between Plant Extract and Cell Viability Indicators During Cytotoxicity Testing: Implications For Ethnopharmacological Studies. *Tropical Journal of Pharmaceutical Research*. 14(11): 1991-1998.
- Chang, Y.H., Seo, J., Song, E., Choi, H.J., Shim, E., Lee, O and Hwang, J. 2016. Bioconverted Jeju Hallabong tangor (*Citrus kiyomi x ponkan*) Peel Extracts by Enhance Antioxidant and Antiinflammatory Capacity in RAW 264.7 Cells. *Nutrition Research and Practice*. 10(2): 131-138.
- Chipojola, F.M., Mwase, W.F., Kwapata, M.B., Bokosi, J.M., Njoloma, J.P and Maliro, M.F. 2009. Morphological Characterization of Cashew (*Anacardium occidentale* L.) in Four Populations in Malawi. *African Journal of Biotechnology*. 8(20): 5170-5181.
- Chung, K.T., Wong, T.Y., Wei, C.I., Huang, Y.W and Lin, Y. 1998. Tannin and Human Health: A Review. *Critical Reviews in Food Science and Nutrition*. 38(6): 421-464.

- Coleman, J.W. 2001. Nitric Oxide in Immunity and Inflammation. *International Immunopharmacology*. (1): 1397-1406.
- Debnath, T., Park, S.R., Kim, D.H., Jo, J.E and Lim, B.O. 2013. Anti-oxidant and Anti-inflammatory Activities of *Inonotus obliquus* and Germinated Brown Rice Extracts. *Molecules*. 18: 9293-9304.
- Djunarko, I., Yanthre, D., Manurung dan Sagal, N. 2016. Efek Antiinflamasi Infusa Bunga Telang (*Clitoria tertatea* L.) dan Kombinasi dengan Infusa Daun Iler (*Coleus atropurpureus* L. Benth) Dosis 140mg/kkbb pada Udemata Telapak Kaki Mencit Betina Terinduksi Karagenin. *Prosiding Rakernas dan Peretemuan Ilmiah Tahunan Ikanatan Apoteker Indonesia*.
- Duarte, J., Francisco, V and Perez-Vizcaino, F. 2014. Modulation of Nitric Oxide by Flavonoids. *The Royal Society of Chemistry*. 5: 1653-1668.
- Dzoyem, J.P., Tsamo, A.T., Melong, R., Mkounga, P., Nkengfack, A.E, McGaw, L.J and Eloff, J.N. 2015. Cytotoxicity, Nitric Oxide and Acetylcholinesterase Inhibitory Activity of Three Limonoids Isolated From *Trichilia welwitschii* (Meliaceae). *Biological Research*. 48-57.
- Ernita, F., Marisa, D dan Suhartono, E. 2015. Potensi Antiinflamasi Jus Buah Belimbing (*Averrhoa carambola* L.) Terhadap Denaturasi Protein *In Vitro*. *Berkala Kedokteran*. 11(1): 33-39.
- Fatchiyah., Arumingtyas, E.L., Widyarti, S dan Rahayu, S. 2009. *Dasar-dasar Analisa Biologi Molekuler*. Lembaga Penerbitan Fakultas Pertanian Universitas Brawijaya. Malang.
- Faujan, H., Noriham, A., Norrakiah, A.S and Babji, A.S. 2007. Antioxidative Activities of Water Extracts of Some Malaysian Herbs. *Asean Food Journal*. 14(1): 61-68.
- Fitriyani, A., Winarti, L., Muslichah, S dan Nuri. 2011. Uji Antiinflamasi Ekstrak Metanol Daun Sirih Merah (*Piper crocatum* Ruiz & Pav) pada tikus Putih. *Majalah Obat Tradisional*. 16(1): 34-42.
- Freshney, R.I 1986. *Animal Cell Culture: A Practical Approach*. IRL Press. The United Kingdom.
- Freshney, R.I. 2000. *Culture of Animal Cells: A Manual of Basic Technique*. Willey-Liss. The United States of America.
- Fukumura, D., Kashiwagi and Jain R.K. 2006. The Role of Nitric Oxide in Tumor Progression. *Nature Reviews Cancer*. 6(7):521-534.

- Francoeur, A.M and Assalian, A. 1996. Microcat: A Novel Cell Proliferation and Cytotoxicity Assay Based on WST-1. *Biochemica*. 14: 555-561.
- Gawel, S., Wardas, M., Niedworok, E and Wardas, P. 2004. Malondialdehyde (MDA) as Lipid Peroxidation Marker. *Wiadomości Lekarskie*. 57(9-10): 453-455.
- Goncalves, E.M., Ventura C.A., Yano, T., Macedo M.L.D and Ganeri, S.C. 2006. Morfological and Growth Alterations in Vero Cells Transformed by Cysplatin. *Cell Biology*. 30: 485-494.
- Govorka, E.A., Meiginer, B., Murti, G and Taisne, C. 1996. African Green Monkey Kidney (Vero) Cells Provide An Alternative Host Cell System For Influenza A and B Viruses. *Journal of Virologi*. 70(8): 5519-5524.
- Güçlü-üstündağ, O and Mazza, G. 2007. Saponins: Properties, Applications and Processing. *Critical Reviews in Food Science and Nutrition*. 47(3): 231-258.
- Hall. 2016. *Guyton dan Hall Buku Ajar Fisiologi Manusia*. Elsevier. Singapura.
- Halliwell, B. 2015. *Antioxidant and Anti-inflammatory Components of Foods*. International Life Sciences Institute. Belgium.
- Hammad, F.B and Mubofu, E.B. 2015. Potential Biological Applications of Bio-Based Anacardic Acids and Their Derivatives. *International Journal of Molecular Sciences*. 16: 8569-8590.
- Han, Y.J., Kwon, Y.G., Chung, H.T., Lee, S.K., Simmons, R.L., Billiar, T.R and Kim, Y.M. 2001. Antioxidant Enzymes Suppress Nitric Oxide Production Through The Inhibiton of NF-kB Activation: Role of H<sub>2</sub>O<sub>2</sub> and Nitric Oxide in Inducible Nitric Oxide Synthase Expression in Macrophage. *Nitric oxide: Biology and Chemistry*. 5(5): 504-513.
- Hasibuan, N.F., Yuniwanti, E.Y.W dan Suedy, S.W.A. 2015. Efek Daun Hambu Biji (*Psidium guajava* Linn) Terhadap Penyumbuhan Luka Pada Kulit Mencit (*Mus musculus* L). *Traditional Medicine Journal*. 20(1): 24-27.
- Hayatillah, R. 2018. Aktivitas Antioksidan Ekstrak Kulit Buah Jambu Mete (*Anacardium occidentale* L.) dengan Model Sel Vero. *Tesis*. Universitas Gadjah Mada. Yogyakarta.
- Hecker, M., Preiß, C., Klemm, P and Busse, R. 1996. Inhibition by Antioxidants of Nitric Oxide Synthase Expression in Murine Macrophage: Role of Nuclear Factor kB and Interferon Regulatory Factor 1. *British Journal of Pharmacology*. 118: 2178-2184.

- Hsiang, C.Y., Hsieh, C.L., Wu, S.L., Lai, I.L and Ho, T.Y. 2001. Inhibitory Effect of Anti-pyretic and Anti-inflammatory Herbs On Herpes Simplex Virus Replication. *The American Journal of Chinese Medicine*. 29(3-4): 459-467.
- Hsu, H.Y and Wen, M.H. 2002. Lipopolysaccharide-mediated Reactive Oxygen Species and Signal Transduction in The Regulation of Interleukin-1 Gene Expression. *Journal of Biological Chemistry*. 277(25): 22131-22139.
- Jayaraman, S., Manoharan, M.S and Illanchezian, S. 2008. *In-vitri* Antimicrobial and Antitumor Activities of *Stevia rebaudiana* (Asteraceae) Leaf Extracts. *Tropical Journal of Pharmaceutical Research*. 7(4): 1143-1149.
- Jeong, S., Jiang, Y., Guo, H., Wang, M and Park.2016. Anti-inflammatory and Anticancer Effects of Methanol, Ethanol and Water Extracts of *Asiasarum heteritripoide*. *Biomedical Research*. 27(1): 103-109.
- Junior, A.L.G., Tchekalarova, J.D., Machado, K.D., Moura, A.K.S., Paz, M.F.C.J., Mata, A.M.O.F., Nogueira, T.R., Islam, M.T., Rios, M.A.S., Cito, A.M.G., Uddin, S.J., Shilpi, J.A., Das, A.K., Lopes, L.S., Melo-Cavalcante, A.M.C. 2018. Anxiolytic Effect of Anacardiac Acids from Cashew (*Anacardium occidenatale*) Nut Shell in Mice. *International Union of Biochemistry and Molecular Biology Journal*. 00(00): 1-12.
- Kallapura, G., Pumford, N., Hernandez-Velasco, X., Hargis, B.M and Tellez, G. 2014. Mechanisms Involved in Lipopolysaccharide Derived ROS and RNS Oxidative Stress and Septic Shock. *Journal of Microbiology Research and Reviews*. 2(1): 6-11.
- Kannan, V.R., Sumathi, C.S., Valasubramanian, V and Ramesh, N. 2009. Elementary Chemical Profiling and Antifungal Properties of Cashew (*Anacardium occidentale* L.) Nuts. *Botany Research Internasional*. 2(4): 253-257.
- Kartika, A. 2017. Sitotoksisitas Ekstrak Etanolik Kulit Biji Jambu Mete (*Anacardium occidentale* L.) dan Penghambatan Proliferasi Sel Kanker Payudara MCF7. *Skripsi*. Biologi Universitas Gadjah Mada. Yogyakarta.
- Kleinert, H., Schwarz, P.M and Förstermann, U. 2003. Regulation of The Experssion of Inducible Nitric Oxide Synthase. *The Journal of Biological Chemistry*. 384(10-11): 1343-1364.
- Kowalczyk, K and Stryjecka-Zimmer, M. 2002. The influence of Oxidative Stress on The Level of Malondialdehyde (MDA) in Different Areas of The Rabbit Brain. *Annales Universitatis Mariae Curie-Sklodowska*. 57(2): 160-164.

- Kubo, I., Ochi, M., Vieira, P.C and Komatsu, S. 1993. Antitumor Agents from The Cashew (*Anacardium occidentale*) Apple. *Journal of Agricultural and Food Chemistry*. 41(6): 1012-1015.
- Kumar. P.R., Paramashivappa, P., Vithayathil, and Rao, S. 2002. Process for Isolation of Cardanol From Technical Cashew (*Anardium occidentale*) Nutshell Liquid. *Journal of Agricultural and Food Chemistry*. 50:4705-4718.
- Kumar. P. S., Kumar N. A., Sivakumar, R and Kaushik. 2009. Experimentation on Solvent Extraction of Polyphenols From Natural Waster. *Journal of Materials Science*. 44(21): 5894-5899.
- Kusmiyati, A. 2012. Uji Sitotoksitas dan Aktivitas Antiangiogenesis Ekstrak Etanolik Anggrek Merpati (*Dendrobium crumenatum* Swartz). *Tesis*. Universitas Gadjah Mada.
- Lawrence, T. 2009. The Nuclear Factor NF-kappaB Pathway in Inflammation. *Cold Spring Harbor Perspective in Biology*. 1(6):1-10.
- Lechner, M., Lirk, P., and Rieder, J. 2005. Inducible nitric synthase (iNOS) in tumor biology: the two sides of the same coin. *Seminars in Cancer Biology*. 15: 277-289.
- Leong, L.P and Shui, G.2002 An Investigation of Antioxidant Capacity of Fruits in Singapore Markets. *Food Chemistry*. 76: 69-75.
- Li, Y., Li, H., Liu, S., Pan, P., Su, X., Tan, H., Wu, D., Zhang, L., Song, C., Dai, M., Li, Q., Mao, Z., Long, Y., Hu, Y and Hu, C. 2018. Pirfenidone Ameliorates Lipopolysaccharide-induced Pulmonary Inflammation And Fibrosis by Blocking NLRP3 Inflammasome Activation. *Molecular Immunology*. 9: 134-144.
- Lirk, P., Hoffmann, G., and Rieder, J. 2002. Inducible nitric oxide synthase-time for reappraisal. *Current Drug Targets-Inflammation & Allergy*. 1: 89-108.
- Listyati, D dan Sudjarmoko, B. 2011. Nilai Tambah Ekonomi Pengolahan Jambu Mete Indonesia. *Buletin RISTI*. 2(2): 231-238.
- Luby, M.C and Thachil, E.T. 2000. Cashew Nut Shell Liquid (CNSL)- A Versatile Monomer For Polymer Synthesis. *Designed Monomers & Polymers*. 3(2): 123-153.
- Lomonaco, D., Mele, G., and Mazzeto, S.E. 2017. *Cashew Nushell Liquid (CNSL): From an Agro-industrial Waste to a Sustainable Alternative to Petrochemical Resources*. Springer International Publishing. p: 19-38.

- Lykkesfeldt and Jens. 2007. Malondialdehyde As Biomarker of Oxidative Damage to Lipids Caused by Smoking. *Clinica Chimica Acta*. 380(1-2): 50-58.
- Marcos, F.M., Sanz, L and Oscar, L. 2012. An Emerging Regulator of Cell Elongation During Primary Root Growth. *Plant Signaling and Behavior*. 7(2): 196-200.
- Mattison, C.P., Cavalcante, J.M., Gallao and M.I, Brito, E. S, D. 2017. Effects of Industrial Cashew Nut Processing on Anacardic Acid Content and Allergen Recognition by IgE. *Food Chemistry*. 240:370-376.
- McAdam, E., Haboubi, H.N., Forrester, G., Eltahi, Z., Spencer-Harty, S., Davies, C., Griffiths, A.P., Baxter, J.N and Jenkins, G.J.S. 2012. Inducible Nitric Oxide Synthase (iNOS) and Nitric oxide (NO) Are Important Mediators of Reflux-induced Cell Signalling in Esophageal Cells. *Carcinogenesis*. 33(11) 2035-2043.
- Meric, G., Dahl, J and Ruyter, I. 2008. Cytotoxicity of Silica-Glass Fiber Reinforced Composites. *Dental Material*. 24: 1201-1206.
- Mitry, R.R and Hughes, R.D. 2012. *Methods in Molecular Biology: Human Cell Culture Protocols Third Edition*. Springer Science Business Media. London.
- Michaelis, M., Sithisarn, P and Cinatl, J. 2014. Effect of Flavonoid-induced Oxidative Stress on Anti-H5N1 Influenza A Virus Activity Exerted by Baicalein and Biochanin A. *Biology Medical Central*. 7(384): 1-6.
- Morton, J.F. 1987. *Cashew Apple Fruits of Warm Climates*. Creative Resource Systems. Miami.
- Morton, J.F. 2003. Cashew Nuts and Cashew Apples. *Encyclopedia of Food Sciences and Nutrition*. 958-964.
- Mosmaan, T. 1983. Rapid Colorimetric Assay For Cellular Growth and Survival: Application to Proliferation and Cytotoxicity Assays. *Journal of Immunological Methods*. 65(1-2): 55-63.
- Mukhriani. 2014. Ekstraksi, Pemisahan Senyawa, dan Identifikasi Senyawa Aktif. *Jurnal Kesehatan*. VII(2): 361-367.
- Muselík, J., García-Alonso, M., Martín-Lopez, M.P., Žemlička, M and Rivas-Gonzalo, J.C. 2007. Measurement of Antioxidant Activity of Wine Catchins, Procyanidins, Anthocyanins and Pyranoanthocyanins. *International Journal of Molecular Sciences*. 8:797-809.

- Muzaffar, S dan Chatto, B.B. 2017. Apoptosis-inducing Factor (Aif1) Mediates Anacardiac Acid-induced Apoptosis in *Saccharomyces cerevisiae*. *Apoptosis*. 22: 463-474.
- Nathan, C. 2002. Points of Control in Inflammation. *Nature*. 420: 846-862.
- Ncube, N.S., Afolayan, A.J and Okoh, A.I. 2008. Assessment Techniques of Antimicrobial Properties of Natural Compounds of Plant Origin: Current Methods and Future Trends. *African Journal of Biotechnology*. 7(12): 1797-1806.
- Nor, Y.A., Sulong, N.H., Mel, M., Salleh, H.M and Sopyan, I.2010.The Growth Study of Vero Cell in Different Type of Microcarrier. *Material Sciences and Applications*. 1: 261-266.
- Ntandou, N., Banzouzi, B., Ossibi, E., Itou, E., Makambila., Ramos., Benoit-vical., Abena and Oumba. 2015. Assessment of *Cassia siamea* Stem Bark Extracts Toxicity and Stability in Time of Aqueous Extract Analgesic Activity. *African Journal of Pharmacy and Pharmacology*. 9(41): 988-994.
- Nugroho, H.W. 2016. Uji sitotoksisitas in vitro ekstrak n-heksana, diklorometana dan etanol Sengkubak (*Pycnarrhena cauliflora*, (Miers.) Diels) pada Kultur Cell Line Kanker T47D dan Selektivitasnya Terhadap Sel Vero. *Skripsi*. Universitas Gadjah Mada.Yogyakarta.
- Obichukwu, M., Labake and Ngozi, R. 2006. Extraction of Polyphenols from Cashew Nut Shell. *Leonardo Electronic Journal of Practices and Technologies*. 9:1007-112.
- Oematan, Z.Z.B. 2015. Pengaruh Perbedaan Suhu dan Waktu Ekstraksi Terhadap Kandungan Tanin Pada Ekstrak Daun Jambu Mete (*Anardium occidentale* L). *Jurnal Ilmiah Mahasiswa Universitas Surabaya*. 4(2): 1-12.
- Okamoto, H., Ito, O., Roman, R.J and Hudetz, A.G. 1998. Role of Inducible Nitric Oxide Synthase and Cyclooxygenase-2 in Endotoxin-induced Cerebral Hyperemia. *Stroke*. 29(6): 1209-1218.
- Ola, A.R.B., Ikawati, Z., Sismindari., Meye, E.D dan Tawo, B.D. 2008. Identifikasi Molekuler dan Aktivitas Antikanker Alkil Fenol dari Minyak Kulit Biji Jambu Mete (*Anacardium occidentale* L) Asal Pulau Timor. *Majalah Farmasi Indonesi*. 19(3):137-144.
- Park, M.H and Hong, J.T. 2016. Roles OF NF- $\kappa$ B in Cancer and Inflammatory Diseases and Their Therapeutic Approaches. *Cells*. 5(15): 1-13.

- Perrone, S., Tataranno, M.L., Stazzoni, G and Buonocore, G. 2012. Oxidative Stress and Free Radicals Related Diseases of The Newborn. *Advances in Bioscience and Biotechnology*. 03(07): 1043-1050.
- Peungjitton, P., Sangvanich, P., Pornpakakul, S., Petsom, A and Roengsumran, S. 2009. Sodium Cardanol Sulfonate Surfactant from Cashew Nut Shell Liquid. *Journal Surfactants and Detergents*. 12:85-89.
- Phrutivorapongkul, A., Lipipun, V., Ruangrunsi, N., Kirtikara, K., Nishikawa, K., Maruyama, S., Watanabe, T and Ishikawa, T. 2003. Studies on The Chemical Constituents of Stem Bark of *Millettia leunchanta*: Isolation of New Chalcones With Cytotoxic, Anti-herpes Simplex Virus And Antiinflammatory Activities. *Chemical and Pharmaceutical Bulletin*. 51(2): 187-190.
- Poela, S dan Hanafiah, A. 2014. Uji Aktivitas Anti Radang Ekstrak Etanol Biji Pinang (*Areca catechu* L.) Pada Tikus Putih Jantan. *Indonesia Journal of Pharmaceutical Science and Technology*. III(1): 16-22.
- Puspitarin, D.Y. 2014. Uji Sitotoksisitas *In Vitro* Ekstrak Sengkubak (*Pycnarrhena cauliflora*, (Miers.) Diels) pada Kultur *Cell Line* WiDr dan Sel Vero. *Skripsi*. Universitas Gadjah Mada. Yogyakarta.
- Rahmawati. 2011. Isolasi dan Metilasi Kardanol dari Cairan Kulit Biji Mete (CKBM) Serta Oksidasinya. *Tesis*. Program Studi Kimia Universitas Gadjah Mada. Yogyakarta.
- Ramirez, M., Coter, F and Gutierrez, P. 2013. Anti-inflammatory Activity of The Hexane Extract of *Byrsonima crassifolia* Seeds in Exoerimental Animal Models. *Alternative Therapies in Health and Medicine*. 19(1): 26-36.
- Ravi, V., Saleem, T.S.M., Patel, S.S., Raamamurthy, J and Gauthaman, K. 2009. Anti-inflammatory Effect of Methanolic Extract of *Solanum nigrum* Linn Berries. *International Journal of Applied Research in Natural Products*. 2(2): 33-36.
- Reiling, N., Ulmer, A.J., Duchrow, M., Ernst, M., Flad, H and Hauschildt. Nitric Oxide Synthase: mRNA Expression of Different Isoforms in Human Monocytes/Macrophage. *European Journal of Immunology*. 24:1941-1944.
- Sanlioglu, S., Williams, C.M., Samavati, L., Butler, N.S., Wang, G and McCray, P.B. 2011. Lipopolysaccharide Induces Rac1-dependent Reactivd Oxygen Species Formation and Coordinates Tumor Necrosis Factor- $\alpha$  Secretion Through IKK Regulation OF NF- $\kappa$ B. *The Journal Of Biological Chemistry*. 276: 30188-30198.

- Santi, T.D. 2015. Uji Toksisitas Akut dan Efek Antiinflamasi Ekstrak Matanol dan Ekstrak n-Heksana Daun Pepaya (*Carica papaya* L). *Pharmaceutical Sciences and Research*. 2(2): 101-114.
- Santos, M. L and Magalhaes, G. C. 1999. Utilisation of Cashew Nut Shell Liquid from *Anacardium occidentale* as Starting Material for Organic Synthesis: A Novel Route to Lasiodiplodin From Cardols. *Journal of The Brazilian Chemical Society*. 10(1):13-20.
- Sharma, J.N., Al-Omran, A and Parvathy, S.S. 2007. Role Nitric Oxide in Inflammatory Diseases. *Inflammopharmacology*. 54(15):252-259.
- Sherwood. 2001. *Fisiologi Manusia*. Penerbit Buku Kedokteran EGC. Jakarta.
- Siddique, Y.H., Ara, G and Afzal, M. 2012. Estimation of Lipid Peroxidation Induced by Hydrogen Peroxide in Cultured Human Lymphocytes. *International Dose-Response Society*. 10: 1-10.
- Sigidi, M.T., Anokwuru, C.P., Zininga, T., Tshisikhawe, M.P., Shonhai, A., Ramaite, D.I., Traore, A.N and Potgieter, N. 2016. Comparative *in vitro* Cytotoxic, Anti-inflammatory and Anti-microbiological Activities of Two Indigenous Venda Medical Plants. *Translational Medicine Communications*. 1-9.
- Simpen, I.N. 2008. Isolasi *Cashew Nut Shell Liquid* dari Kulit Biji Jambu Mete (*Anacardium occidentale* L) dan Kajian Beberapa Sifat Fisiko-Kimianya. *Jurnal Kimia*. 2 (2): 71-76.
- Soematmaji, D.W. 1998. Peran Stres Oksidatif Dalam Patogenesis Angiopati Mikro dan Makro DM. *Medica*. 5(24): 318-325.
- Sofyan, S. 1980. Peranan Tanaman Jambu Mete (*Anacardium occidentale* Linn) Dalam Usaha Pelestarian Hidup dan Peingkatan Manfaat Hasil Pertanian. *Agritech*. 1(3): 29-33.
- Song, Y., Liu, J., Zhan, F., Zhang, J., Shi, T and Zeng, Z. 2013. Antioxidant Effect of Quercetin Against Acute Spinal Cord Injury in Rats and Its Correlation With The p38MAPK/iNOS Signalling Pathway. *Life Sciences*. 92(254-26): 1212-1221.
- Souza, M.Q., Teotonio, I.S.M.N., Almeida, F.C., Heyn, G.S., Alves, P.S., Romeiro, L.A.S., Pratesi, R., Nobrega, Y.K.M., Pratesi, C.B. 2018. Molecular Evaluation of Anti-inflammatory Activity of Phenolic Lipid Extracted from Cashew Nut Shell Liquid (CNSL). *BioMedicine Central*. 18(181): 1-11.

- Steele, M.L., Troung, J., Govindaraghavan, S., Ooi, L., Sucher, N.J and Münch, G. 2013. Cytoprotective Properties of Traditional Chinese Medical Herbal Extracts in Hydrogen Peroxide Challenged Human U373 Astroglia Cell. *Neurochemistry International*. 62(5): 522-529.
- Stumpf, W.E. 2006. The Dose Makes The Medicine. *Drug Discovery Today*. 11(11/12): 550-555.
- Sudjaji. 1990. *Terpenoid in A.A Mursyidi (Ed). Analisis Metabolit Sekunder*. Bioteknologi Universitas Gadjah Mada. Yogyakarta.
- Sukmawati, Yuliet, dan Hardani, R. 2015. Uji Aktivitas Antiinflamasi Ekstrak Etanol Daun Pisang Ambon (*Musa paradisiaca* L.) Terhadap Tikus Putih (*Rattus norvegicus* L.) yang Diinduksi Karagenan. *Galenika Journal of Pharmacy*. 1(2): 126-132.
- Striegel, M.F and Hill, J. 1996. *Thin-layer Chromatography for Binding Media Analysis*. The J.Paul Getty Trust. The United States.
- Sung, B., Pandey, M. K., Ahn., K.W, Yi, T., Chaturvedi, M.M., Liu, M., and Aggrawal, B. 2016. Anacardiac acid (6-Nonadecyl salicylic acid), an Inhibitor of Histone Acetyltransferase, Suppresses Expression of Nuclear Factor- $\kappa$ B-Regulated Gene Products Involved in Cell Survival, Proliferation, Invasion, and Inflammation Through Inhibition of The Inhibitory Subunit of Nuclear Factor- $\kappa$ B $\alpha$  kinase, Leading to Potentiation of Apoptosis. *Blood*. 111(10):4880-4891.
- Taiz, L and Zeiger, E. 2002. *Plant Physiology*, 3<sup>rd</sup> ed. Annals of Botany Company. Sunderland. p 290
- Tak, P.P and Firestein, G.S. 2001. NF- $\kappa$ B: A Key Role in Inflammatory Diseases. *The Journal of Clinical Investigation*. 107(1): 7-11.
- Tan, J., Chen, B., He, L., Tang, Y, Jiang, Z., Yin,G., Wang, J., and Jiang, X. 2012. Anacardiac acid (6-pentadecylsalicylic acid) induces apoptosis of prostate cancer cells through inhibition of androgen receptor and activation of p53 signaling. *Chinese Journal of Cancer Research*. 24(4), 275-283.
- Thomas, M.K., Narang, D., Laskhmy, R., Gupta, R., Naik, N and Maulik, S.K. 2006. Correlation Between Inflammation and Oxidative Stress in Nomocholesterolemic Coronary Artery Disease Patients “on” and “off” Atorvastatin For Short Time Intervals. *Cardiovascular Drugs and Therapy*. 20(1): 37-44.
- Thenmozhi, V, Elango, V, and Sadique, J. 1989. Antiinflammatory Activity of Some Indian Medicinal Plants. *Ancient Science of Life*. VIII (3&4): 258-261.

- Tiwari, P., Kumar, B., Kaur, M., Kaur, G and Kaur, H. 2011. Phytochemical Screening and Extraction: A Review. *International Pharmaceutical Science*. 3: 592-605.
- Tyman, J.P., Johnson, R., Muir, M and Ronhgar, R. 1989. The Extraction of Natural Cashew Nut Shell Liquid from The Cashew Nut (*Anardium occidentale*). *Journal of The American Oil Chemists Society*. 66: 553-557.
- Vajdovich, P. 2011. Free Radicals and Antioxidants in Inflammatory Processes and Ischemia-Reperfusion Injury. Veterinary Clicnics of North America. *Small Animals Practice*. 38(1): 31-123.
- Valko, M., Izakovic, M., Mazur, M., Rhodes, C.J and Telser, J. 2004. Role of Oxygen Radicals in DNA Damage and Cancer Indicence. *Molecular and Cellular Biochemistry*. 266 (1/2): 37-56.
- Vergnolle, N. 2003. The Inflammantory Response. *Drug Development Research*. 59: 375-381.
- Veriony, L., Sudarsono dan Nugroho, A.E. 2011. Aktivitas Antiinflamasi Rebusan Kulit Batang Jambu Mete (*Anacardium occidentale* L) Pada Udemata Kaki Tikus Terinduksi Karagenin. *Majalah Obat Tradisional*. 16(3): 147-155.
- Wang, S., Liang, C., Liang, F., Ding, H., Lin, S., Huang, G., Lin, W and Juang, S. 2016. The Inhibitory Mechanisms Study of 5,6,4'-Trihydroxy-7,3'-Dimethoxyflavone Against The LPS-Induced Macrophage Inflammatory Responses Through The Antioxidant Ability. *Molecules*. 21(136): 1-13.
- Wang, N., Tan, F., Zhao, Y., Tsoi, C.C., Fan, X., Yu, W and Zhang, X. 2016. Optofluidic UV-Vis Spectrophotometer For Online Monitoring of Photocatalytic Reactions. *Scientific Reports*. 6:1-8.
- Yin, L., Wei, Y., Wang, Y., Xu, Y and Yanh, Y. 2013. Long Term and Standard Incubations of WST-1 Reagent Reflect The Same Inhibitory Trend of Cell Viability in Rat Airway Smooth Muscle Cell. *International Journal of Medical Sciences*. 10(1): 68-72.
- Yuniarni, U., Hazar, S., Oktiwillianti, W dan Choerina, R. 2015. Aktivitas Antiinflamasi Ekstrak Etanol Buah dan Daun Asam Jawa (*Tamarindus indica*) Serta Kombinasinya pada Tikus Jantan Galur Wistar. *Prosiding Seminar Nasional Penelitian dan PKM Kesehatan*. 2477-2364.
- Zakiah, N. 2017. Sitotoksisitas dan Penghambatan Pertumbuhan Breast Cancer T47D oleh Ekstrak Etanolik Kulit Biji Mete (*Anacardium occidentale* L.). *Skripsi*. Biologi Universitas Gadjah Mada. Yogyakarta.



**UJI POTENSI EKSTRAK KULIT BUAH METE (*Anacardium occidentale* L.) SEBAGAI ANTIINFLAMASI PADA MODEL SEL VERO**

WIDIE KEMALA HAPSARI, Dr.biol.hom. Nastiti Wijayanti, S.Si, M.Si.

Universitas Gadjah Mada, 2018 | Diunduh dari <http://etd.repository.ugm.ac.id/>

Zhou, M and Wang, Z.L. 2018. Protective Effects of Hydrogen-rich Medium on Lipopolysaccharides-induced Injury in Human Periodontal Ligament Cells. *West China Journal of Stomatology*. 36(2): 123-127.