UNIVERSITAS
GADJAH MADA
NARRATIVE REVIEW: AKTIVITAS KULIT JERUK SEBAGAI IMMUNOMODULATOR
Ranizza Kamila, Dr. rer. nat. apt. Nanang Fakhrudin, M.Si.
Universitas Gadjah Mada, 2023 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

Abdelaziz S. A. A., Gamal A.,Adnan A. A. A., 2014, Hesperidin Inhibits Inflammatory Response Induced by Aeromonas hydrophila Infection and Alters CD4+/CD8+ T Cell Ratio, Hindawi Publishing Corporation Mediators of Inflammation Volume 2014, Article ID 393217.

Abrego-Peredo A., Romero-Ram´ırez H., Espinosa E., Lo´pez-Herrera G., Garcı´a-Garcı´a F., Flores-Muñoz M., 2020, Naringenin mitigates autoimmune features in lupus-prone mice by modulation of T-cell subsets and cytokines profile. PLoS ONE 15(5): e0233138.

Aditya, B.P. ,2021, Khasiat Tanaman Obat Herbal , Pustaka Media, Surabaya.

Aidah, S. N., 2020, Sistem Imunitas Manusia, Tim Penerbit KBM Indonesia, Yogyakarta.

Anonim, 2023, Naringin Structural Formula , http://www.knapsackfamily.com/knapsack_core/information.php?word=C00000983 diakses tanggal 28 Juni 2023 pukul 13.00.

Anonim, 2023, Quercetin Structural Formula , http://www.knapsackfamily.com/knapsack_core/information.php?word=C00004631 diakses tanggal 28 Juni 2023 pukul 13.00.

Baldwin, E.A., 1993, Citrus fruit. In: Seymour G.B., Taylor J.E., Tucker G.A. (eds) Biochemistry of Fruit Ripening. Springer, Dordrecht.

Balitbangtan, 2007 , Prospek dan Arah Pengembangan Agribisnis Jeruk, Jakarta : Badan Penelitian dan Pengembangan Pertanian.

Balitbangtan, 2014 , Kharakteristik Varietas dan Distribusi Benih Sumber Jeruk Nusantara, Pusat Penelitian dan Pengembangan Hortikultura Badan Penelitian dan Pengembangan Pertanian.

Budiati, E., 2021, Teknologi Inovatif Jeruk Sehat Nusantara, IPB Press, Bogor.

Camps-Bossacoma, M., Àngels F., Francisco J. P., Margarida C., 2017, Influence of Hesperidin on the Systemic and Intestinal Rat Immune Response, Nutrients 2017, 9, 580; doi:10.3390/nu9060580.

Chemspider, 2023, Nobiletin, http://www.chemspider.com/Chemical-Structure.65283.html?rid=e6da51f0-e098-4929-ab06-d3e032d189d3 diakses tanggal 25 Juni 2023 pukul 19.00.

Chemspider, 2023, Hesperidin, http://www.chemspider.com/Chemical-Structure.10176.html?rid=248518c1-67c6-4a58-94d4-e9e0c3f7782a diakses tanggal 25 Juni 2023 pukul 19.00.

UNIVERSITAS
GADJAH MADA
NARRATIVE REVIEW: AKTIVITAS KULIT JERUK SEBAGAI IMMUNOMODULATOR
Ranizza Kamila, Dr. rer. nat. apt. Nanang Fakhrudin, M.Si.
Universitas Gadjah Mada, 2023 | Diunduh dari http://etd.repository.ugm.ac.id/

Chemspider, 2023, Naringenin, http://www.chemspider.com/Chemical-Structure.388383.html?rid=58ff2fd3-7e14-482b-ace9-1c38a4114628&page_num=0 diakses tanggal 25 Juni 2023 pukul 19.00.

Chemspider, 2023, Diosmetin, http://www.chemspider.com/Chemical-Structure.4444931.html?rid=f5f7bd81-f5ed-4894-9cbd-5c379bee75cf diakses tanggal 25 Juni 2023 pukul 19.00.

Chemspider, 2023, Tangeretin, http://www.chemspider.com/Chemical-Structure.61389.html?rid=77926b85-0a40-4a62-94dc-834b874f5854 diakses tanggal 25 Juni 2023 pukul 19.00.

Chemspider, 2023, Narirutin, http://www.chemspider.com/Chemical-Structure.390871.html?rid=195d53c6-bfc5-49c5-ab36-31aaa3862e6c diakses tanggal 25 Juni 2023 pukul 19.00.

Chemspider, 2023, Isoprene, http://www.chemspider.com/Chemical-Structure.6309.html?rid=d3f17052-85bf-432b-827c-3f3132103625 diakses tanggal 25 Juni 2023 pukul 19.00.

Chemspider, 2023, Limonene http://www.chemspider.com/Chemical-Structure.388386.html?rid=7ed8d08d-3f7f-4bf0-bbb6-11ab30a98074, diakses tanggal 25 Juni 2023 pukul 19.00.

Chemspider, 2023, Auraptene, http://www.chemspider.com/Chemical-Structure.1267148.html?rid=f29d3159-6ff2-4f1d-a237-4a2f9f72e640 diakses tanggal 25 Juni 2023 pukul 19.00.

Chen, Z., Zhen-Hao W., Weiyang F., Jiashuo Z., Yue Y., Weiwei S., Yonggang W. & Peibo L., 2022, Naringenin suppresses BEAS2B-derived extracellular vesicular cargoes disorder caused by cigarette smoke extract thereby inhibiting M1 macrophage polarization, journal Frontiers in Immunology 13:930476.

Diab K. A., 2016, In Vitro Studies on Phytochemical Content, Antioxidant, Anticancer, Immunomodulatory , and Antigenotoxic Activities of Lemon, Grapefruit, and Mandarin Citrus Peels, Asian Pacific Journal of Cancer Prevention, Vol 17, 2016, 3559-3567.

Endarto, O. & Martini, E., 2016, Pedoman Budidaya Jeruk Sehat. Balai Penelitian Tanaman Jeruk dan Buah Subtropika (Balitjestro), *World Agroforestry Centre*, Bogor.

Fang F., Yijun T., Zhe G., Qiang X., 2010, A novel regulatory mechanism of naringenin through inhibition of T lymphocyte function in contact hypersensitivity suppression, Biochemical and Biophysical Research Communications 397, 2010, 163–169.

FAO, 2013, FAO Statistical Yearbook: World food and agriculture, Food and Agriculture Organization of the United Nations, Rome.

UNIVERSITAS
GADJAH MADA
NARRATIVE REVIEW: AKTIVITAS KULIT JERUK SEBAGAI IMMUNOMODULATOR
Ranizza Kamila, Dr. rer. nat. apt. Nanang Fakhrudin, M.Si.
Universitas Gadjah Mada, 2023 | Diunduh dari http://etd.repository.ugm.ac.id/

Fernández-López, J., Zhi N, Aleson-Carbonell L., Pérez-Alvarez J.A., Kuri V., 2005, Antioxidant and antibacterial activities of natural extracts: application in beef meatballs. Meat Sci., 69: 371-380.

Hajizadeh, A. , Abtahi Froushani, S. M., Tehrani, A. A., Azizi, S. , Bani Hashemi, S. R., 2021, Effects of Naringenin on Experimentally Induced Rheumatoid Arthritis in Wistar Rats, Archives of Razi Institute, Vol. 76, No. 4 (2021) 903-912.

Jayaprakasha, G. K., Girennavar B., Patil B. S., 2008, Radical scavenging activities of Rio Red grapefruits and Sour orange fruit extracts in different in vitro model systems. Bioresour Technol. 2008 Jul;99(10):4484-94.

Lingtao, J., Wenfeng Z., Fayun Z., Chunling Z. & Wei L., 2017, Naringenin Ameliorates Acute Inflammation by Regulating Intracellular Cytokine Degradation, The Journal of Immunology 2017; 199:3466-3477.

Keun-Ha, S., Ho-Young P., Hyojin E., Yoonsook K., Inwook C., 2012, Narirutin fraction from citrus peels attenuates LPS-stimulated inflammatory response through inhibition of NF-jB and MAPKs activation, Food and Chemical Toxicology 50, 2012, 3498–3504.

Kang, S., Kwang-Il P., Hyeon-Soo P., Do-Hoon L., Jin-A K., Arulkumar N., Eun-Hee K., Won-Sup L., Sung-Chul S., Moon-Ki P., Dae-Yong H. & Gon-Sup K., 2011, Anti-inflammatory effect of flavonoids isolated from Korea *Citrus aurantium L*. on lipopolysaccharide-induced mouse macrophage RAW 264.7 cells by blocking of nuclear factor-kappa B (NF-jB) and mitogen-activated protein kinase (MAPK) signalling pathways, Food Chemistry 129, 2011, 1721–1728.

Kyung-Baeg R., Il-Hyun K., Young-Soo K., Myungjae L., Jung-A L., Eunsun J. & Deokhoon P., 2014, Synephrine Inhibits Eotaxin-1 Expression via the STAT6 Signaling Pathway, Molecules 2014, 19, 11883-11895.

Lappas ,C. M. , Nicholas T. L., 2012, D-Limonene modulates T lymphocyte activity and viability ,Cellular Immunology 279, 2012, 30–41.

Lee, D, Jeong-ki P, Jawun C., Hyuk J., Jae-won S., Anti-inflammatory effects of natural flavonoid diosmetin in IL-4 and LPSinduced macrophage activation and atopic dermatitis mode, International Immunopharmacology 89, 2020, 107046.

Lin, N., Sato T, Takayama Y., Mimaki Y., Sashida Y., Yano M., Ito A.,2003 Novel anti-inflammatory actions of nobiletin, a citrus polymethoxy flavonoid, on human synovial fibroblasts and mouse macrophages. Biochem Pharmacol. 2003 Jun 15;65(12):2065-71.

Liu, Z., Shuguang G., Qirong D., 2020, Nobiletin suppresses IL-21/IL-21 receptor-mediated inflammatory response in MH7A fibroblast-like

UNIVERSITAS
GADJAH MADA
NARRATIVE REVIEW: AKTIVITAS KULIT JERUK SEBAGAI IMMUNOMODULATOR
Ranizza Kamila, Dr. rer. nat. apt. Nanang Fakhrudin, M.Si.
Universitas Gadjah Mada, 2023 | Diunduh dari http://etd.repository.ugm.ac.id/

synoviocytes (FLS): An implication in rheumatoid arthritis, European Journal of Pharmacology 875, 2020.

Luo, Y., Chen-Chen Z., Pei-Bo L., Yi-Chu N., Hao W., Jian-Gang S., Wei-Wei S., 2012, Naringin attenuates enhanced cough, airway hyperresponsiveness and airway inflammation in a guinea pig model of chronic bronchitis induced by cigarette smoke, International Immunopharmacology 13, 2012, 301–307.

Lydia, W. S., 1991, Understanding The Immune System, National Institute Of Health, United State. 1-2.

Mahdani, F.Y., Adiastuti E. P., Diah S. E., Hasrul H., Sekar A. P. E., Ulyasari R., Priyo H., Hening T. H., Meircurius D. C. S., 2020, Citrus limon Peel Essential Oil–Induced Type IV Hypersensitivity Reaction, Journal of Experimental Pharmacology, 2020:12 213–220.

Manthley, J. A. & Grohmann K., 2001, Phenols in citrus peel byproducts. Concentrations of hydroxycinnamates and polymethoxylated flavones in citrus peel molasses. J. Agric. Food Chem.

Maatouk, M. , Dorra E., Nadia M., Hind C., Imen M. B., Irina L., Soumaya K., Mohamed G., Kamel G., Leila C., 2016, Effect of heated naringenin on immunomodulatory properties and cellular antioxidant activity ,Cell Stress and Chaperones, 2016, 21:1101–1109.

Mauryaa, A.K., Shilpa Mohantya , Anirban Pala , Chandan Singh Chanotiya , Dnyaneshawar Umrao Bawankule, 2018, The essential oil from Citrus limetta Risso peels alleviates skin inflammation: In-vitro and in-vivo study, Journal of Ethnopharmacology 212, 2018, 86–94.

Mendes, L. F., Vítor M. G., Tiago A. C., João F. M. & Iola F. D., 2019, Flavonoid-mediated immunomodulation of human macrophages involves key metabolites and metabolic pathways, scientific reports nature research.

Nanda, P., 2021, Pemanfaatan Kulit Buah Jeruk dan Isinya, publikasi Yuyun Belia.

Nava, D., Philip W., 2011, Innate Immune System of Skin and Oral Mucosa, John Wiley and Sons Inc. New Jersey.

Ning, A., Tao Y., Xiao-Xia Z. & Mei-xia X., 2021, Bergamottin alleviates LPS-induced acute lung injury by inducing SIRT1 and suppressing NF-κB, Innate Immunity 27, 7-8.

Nishimoto, S., Ayako M., Kosuke N., Ayumu K., Takuya S., 2012, Immunomodulatory effects of citrus fruit auraptene in vitro and in vivo, Journal of Functional Foods 4, 2012, 883 – 890.

UNIVERSITAS
GADJAH MADA
NARRATIVE REVIEW: AKTIVITAS KULIT JERUK SEBAGAI IMMUNOMODULATOR
Ranizza Kamila, Dr. rer. nat. apt. Nanang Fakhrudin, M.Si.
Universitas Gadjah Mada, 2023 | Diunduh dari http://etd.repository.ugm.ac.id/

Niu. X., Zhihong H., Lin Z., Xuequn R., Junpeng W., 2015, Auraptene has the inhibitory property on murine T lymphocyte activation, European Journal of Pharmacology 750, 2015, 8–13.

Nuri, A., 2017, Peningkatan Produksi, Manfaat, Sustainability, Biodiversitas Tanaman Indonesia Volume 1, IPB Press, Bogor.

Pantsulaia, I., Manana I., Nato P., & Tinatin C., 2014, The Effect of Citrus Peel Extracts on Cytokines Levels and T Regulatory Cells in Acute Liver Injury, Hindawi Publishing Corporation BioMed Research International Volume 2014.

Perveen S., Areej A., 2018, Terpenes and Terpenoids, London, United Kingdom, IntechOpen. page 2.

Pierre, P. M., Claude R. A., Emile M. G., & Jacques M. E., 1994, Differentiation of citrus juices by factorial discriminant analysis using liquid chromatography of flavanone glycosides**,** *Journal of Agricultural and Food Chemistry* 1994, *42* (1), 70-79.

Pracaya, 2009. Jeruk manis Varietas, Budidaya, dan pascapanen. Cetakan XV. Penebar Swadaya, Jakarta.

Praworo, K., 2011, Terapi Medipic : Medical Picture, Penebar Swadaya Grup, Jakarta.

Rahmat, P., 2011, 21 Jenis Tbulampot Terpopuler, PT Agromedia Pustaka, Jakarta Selatan.

Ruiz-Iglesias, P., Sheila E., Mariona C., Malén M., Àngels F., Francisco J. P., & Margarida C., 2020, Influence of Hesperidin on Systemic Immunity of Rats Following an Intensive Training and Exhausting Exercise, Nutrients 2020, 12, 1291.

Satoshi, O., Sona M., Naoko S., Nahomi M., Mitsunari N., Yoshiko F., 2013, Anti-inflammatory and neuroprotective effects of auraptene, a citrus coumarin, following cerebral global ischemia in mice, European Journal of Pharmacology 699, 2013, 118–123.

Sarwono, 2001, Khasiat dan Manfaat Jeruk Nipis, PT Agromedia Pustaka, Jakarta Selatan.

Sassi, A, Mokdad B. I., Mustapha N., Maatouk M., Ghedira K., Chekir-Ghedira L., 2017, Immunomodulatory potential of hesperetin and chrysin through the cellular and humoral response. Eur J Pharmacol. 2017 Oct 5;812:91-96.

Schieber, A., Stintzing F.C., Carle R., 2001, By-products of plant food processing as a source of functional compounds - recent developments. Trends in Food Science and Technology, volume 12 issue 11, 401-403.

UNIVERSITAS
GADJAH MADA
NARRATIVE REVIEW: AKTIVITAS KULIT JERUK SEBAGAI IMMUNOMODULATOR
Ranizza Kamila, Dr. rer. nat. apt. Nanang Fakhrudin, M.Si.
Universitas Gadjah Mada, 2023 | Diunduh dari http://etd.repository.ugm.ac.id/

Shaheen, S. , Aqeel J., Adeel S., Aammir G. & Shahzada K. S., 2021, Effect of methanolic extract of Citrus limetta peel on cellular and humoral immune response in mice, Pakistan Journal of Pharmaceutical Sciences Vol.34, No.5, 1861-1866.

Siagian, E., 2018, Immunology, Uwais Inspirasi indonesia, Ponorogo.

Syarifuddin, 2019, Imunologi Dasar, Prinsip Dasar Kekebalan Tubuh, Klinik Cedekia.

Wang, J., Xinli N., Chunfang W. & Dayong W., 2018, Naringenin Modifies the Development of Lineage-Specific Effector CD4+ T Cells, journal Frontiers in Immunology 9:2267.

Wu, X., Mingyue S., Kanyasiri R., Jinkai Z., Shanshan G., Zhonghai T., Shuangde Z., Hang X., 2015, Anti-inflammatory effects of 4′-demethylnobiletin, a major metabolite of nobiletin, Journal of Functional Foods 19, 2015, 278–287.

Xinmiao, L., Siyu Z., Zhangchi N., Honglian Z., Yisong S., Ou T., Cheng X., Cheng L., & Yuanyan L., 2015, Citrus fruits as a treasure trove of active natural metabolites that potentially provide benefits for human health, Chemistry Central Journal, 2015, 9:68.

Xu, S., Yong-Gang K., Wo-Er J., Rui Y., Yue-Long Q., Yu X., Ze-Zhang T., Shi-Ming C., 2019 , Tangeretin promotes regulatory T cell differentiation by inhibiting Notch1/ Jagged1 signaling in allergic rhinitis, International Immunopharmacology 72, 2019, 402-412.

Yamanobe, H., Kenta Y., Saki K., Kei N., Fumishige O., Toshiro Y., Osam M., & Narisato K., 2023, Anti-Inflammatory Effects of β-Cryptoxanthin on 5-Fluorouracil-Induced Cytokine Expression in Human Oral Mucosal Keratinocytes, Molecules 2023, 28, 2935.

Yuanitasari, A., 2011, Bertanam Jeruk di Dalam Pot dan di Kebun, PT Agromedia Pustaka, Jakarta Selatan.