

DAFTAR PUSTAKA

- Amaro-Ortiz, A., Yan, B., & D'Orazio, J. A., 2014, Ultraviolet radiation, aging and the skin: Prevention of damage by topical cAMP manipulation. *Molecules*, **19**(5), 6202–6219.
- Apritadila, B. A., 2019, Uji Aktivitas Sitoprotektif Ekstrak Air Sel Punca Tanaman Tomat (*Solanum lycopersicum* L.) dan Analisis Ekspresi COX-2 pada Sel *Human Dermal Fibroblast Adult* (HDFa) yang Diinduksi Sinar UV-B, *Skripsi*, Fakultas Farmasi, Universitas Gadjah Mada, Yogyakarta.
- Bainbridge, P., 2013, Wound healing and the role of fibroblasts, *Journal of Wound Care*, **22**(8), 407–412.
- Bowles, Dianna J., 1990, Defense-Related Proteins in Higher Plants, *Annu.Rev.Biochem*, **59**, 873-907.
- Burphy, R. W., 2010, *Immunocytochemistry: A Practical Guide for Biomedical Research*, Springer-Verlag, New York.
- Byun, J. Y., Lee, G. Y., Choi, H. Y., Myung, K. B., & Choi, Y. W., 2011, The expressions of TGF- β 1 and IL-10 in cultured fibroblasts after ALA-IPL photodynamic treatment, *Annals of Dermatology*, **23**(1), 19–22.
- Coolen, N. A., Schouten, K. C. W. M., Middelkoop, E., & Ulrich, M. M. W., 2010, Comparison between human fetal and adult skin, *Archives of Dermatological Research*, **302**(1), 47–55.
- Deng, M., Li, D., Zhang, Y., Zhou, G., Liu, W., Cao, Y., & Zhang, W., 2018, Protective effect of crocin on ultraviolet B-induced dermal fibroblast photoaging, *Molecular Medicine Reports*, **18**(2), 1439–1446.
- Diffey, B.L., 2002, What is light? *Photodermatol, Photoimmunol, Photomed*, **18**, 68–74.
- Duell, B. L., Tan, C. K., Carey, A. J., Wu, F., Cripps, A. W., & Ulett, G. C., 2012, Recent insights into microbial triggers of interleukin-10 production in the host and the impact on infectious disease pathogenesis, *FEMS Immunology and Medical Microbiology*, **64**(3), 295–313.
- Dwi, N. M., Waeniati, Muslimin, & Suwastika, I. N., 2012, Pengaruh Penambahan Air Kelapa Dan Berbagai Konsentrasi Hormon 2,4-D Pada Medium Ms Dalam Menginduksi Kalus Tanaman Anggur Hijau (*Vitis vinifera* L.), *Natural Science*, **1**(1), 53–62.

- Fang, F., Ni, K., Cai, Y., Ye, Z., Shang, J., Shen, S., & Xiong, C., 2017, Biological characters of human dermal fibroblasts derived from foreskin of male infertile patients, *Tissue and Cell*, **49**(1), 56–63.
- Fisher, G., C. Datta, S., Talwar, H., Q Wang, Z., Varani, J., Kang, S., & J. Voorhees, J., 1996, Molecular basis of sun-induced premature skin ageing and retinoid antagonism, *Nature*, **379**, 335-339.
- Freshney, R. I., 2010, *A Manual of Basic Technique and Specialized Applications*, John Wiley & Sons, Hoboken, New Jersey.
- Galuh, Sekar, 2016, Analisis Kandungan Senyawa dan Protein Sel Punca Kecambah Wortel (*Daucus carota* L.) serta Aktivitas Antioksidan dengan Metode DPPH (2,2-difenil-1-pikril-hidrazil), *Skripsi*, Fakultas Farmasi, Universitas Gadjah Mada, Yogyakarta.
- Hutami, S., 2008, Masalah Pencoklatan pada Kultur Jaringan, *AgroBiogen*, **4**(2), 83–88.
- Istiqomah, 2013, Perbandingan Metode Ekstraksi Maserasi Dan Sokletasi Terhadap Kadar Piperin Buah Cabe Jawa (*Piperis Retrofracti Fructus*), *Skripsi*, UIN Jakarta.
- Izykowska, I., Gebarowska, E., Cegielski, M., Podhorska-Okolow, M., Piotrowska, A., Zabel, M., & Dziegiel, P., 2009, Effect of melatonin on melanoma cells subjected to UVA and UVB radiation in in vitro studies, *In Vivo*, **23**(5), 733–738.
- Kamiloglu, S., Grootaert, C., Capanoglu, E., Ozkan, C., Smagghe, G., Raes, K., & Van Camp, J., 2016, Anti-inflammatory potential of black carrot (*Daucus carota* L.) polyphenols in a co-culture model of intestinal Caco-2 and endothelial EA.hy926 cells, *Molecular Nutrition & Food Research*, **61**.
- Kammeyer, A., & Luiten, R. M., 2015, Oxidation events and skin aging, *Ageing Research Reviews*, **21**, 16–29.
- Kanagalakshmi, A., Agilan, B., Mohana, S., 2014, Ferulic acid modulates ultraviolet-B radiation mediated inflammatory signaling in human dermal fibroblasts, *Journal of Research in Biology*, **4**(8), 1505-1515.
- Khalil, C., 2015, In Vitro UVB induced Cellular Damage Assessment Using Primary Human Skin Derived Fibroblasts, *MOJ Toxicology*, **1**(4), 138–143.
- Khristina, C.A., 2016, Uji Efek Sitoprotektif Ekstrak Sel Punca Kecambah Wortel (*Daucus carota* L.) secara In Vitro serta Uji Aktivitas Antioksidan dengan

Metode FRAP, *Skripsi*, Fakultas Farmasi Universitas Gadjah Mada, Yogyakarta.

King, Alice & Balaji, Swathi & D Le, Louis & Crombleholme, Timothy & G Keswani, Sundeep, 2014, Regenerative Wound Healing: The Role of Interleukin-10, *Advances in wound care*, **3**, 315-323.

Lee, M. J., Jeong, N. H., & Jang, B. S., 2015, Antioxidative activity anantiaging effect of carrot glycoprotein, *Journal of Industrial and Engineering Chemistry*, **25**, 216–221.

Lembo, S., Cirillo, T., Gasparri, F., Monfrecola, G., Balato, A., Di Caprio, R., & Giannini, V., 2014, The Modulatory Effect of Ellagic Acid and Rosmarinic Acid on Ultraviolet-B-Induced Cytokine/Chemokine Gene Expression in Skin Keratinocyte (HaCaT) Cells, *BioMed Research International*, 1–8.

Lestari, E. G., 2010, Peranan Zat Pengatur Tumbuh dalam Perbanyakan Tanaman melalui Kultur Jaringan, *Jurnal AgroBiogen*, **7**(1), 63–68.

Liechty, K. W., Kim, H. B., Adzick, N. S., & Crombleholme, T. M., 2000, Fetal wound repair results in scar formation in interleukin-10-deficient mice in a syngeneic murine model of scarless fetal wound repair, *Journal of Pediatric Surgery*, **35**(6), 866–873.

Lucas, R., McMichael, T., Smith, W., & Armstrong, B, 2006, Solar ultraviolet radiation: Global burden of disease from solar ultraviolet radiation; environmental burden of disease series, *Environmental Burden of Disease Series*, **13**.

Mariana, S. R., Bahena, S. M., Antonio, R. E., Antonio, B. A., Francisco, C. S., Judith, G. C., Alvarez, L., 2018, Establishment and phytochemical analysis of a callus culture from *ageratina pichinchensis* (Asteraceae) and its anti-inflammatory activity, *Molecules*, **23**(6), 1–14.

Masaki, H., 2010, Role of antioxidants in the skin: Anti-aging effects, *Journal of Dermatological Science*, **58**(2), 85–90.

Meerlo, J., Van, G., J. L. Kaspers, J., Cloos, 2011, Cell sensitivity assays: The MTT Assay, *Cancer Cell Culture: Methods and Protocols, Second Edition, Methods in Molecular Biology*, **731**.

Miller, L., & Horvat, V., 2015, Pathologic patterns of interleukin 10 expression – A review, *Biochemia Medica*, (3), 36–48.

- Momin, R. A., De Witt, D. L., & Nair, M. G., 2003, Inhibition of cyclooxygenase (COX) enzymes by compounds from *Daucus carota* L. seeds, *Phytotherapy Research*, **17**(8), 976–979.
- Moscatiello, R., Baldan, B., & Navazio, L., 2013, Plant cell suspension cultures, *Plant Mineral Nutrients*, **953**, 77–93.
- Mosser, D.M., & Zhang, 2008, Interleukin-10: new perspectives on an old cytokine, *NIH Public Access*, **226**, 205–218.
- Murashige, T., & Skoog, F., 1962, A Revised Medium for Rapid Growth and Bio Assays with Tobacco Tissue Cultures, *Physiologia Plantarum*, **15**.
- Nishigori, C., Shirakawa, T., Bito, T., Sumita, N., Yoshiki, R., Masaki, T., Ueda, M., 2010, Ultraviolet light induces Stat3 activation in human keratinocytes and fibroblasts through reactive oxygen species and DNA damage, *Experimental Dermatology*, **19**(7), 654–660.
- Nurrochmad, A., Wirasti, W., Dirman, A., Lukitaningsih, E., Rahmawati, A., & Fakhruddin, N., 2019, Effects of Antioxidant, Anti-Collagenase, Anti-Elastase, Anti-Tyrosinase of The Extract and Fraction From *Turbinaria decurrens* Bory, *Indonesian Journal of Pharmacy*, **29**(4), 188.
- Pacheco-palencia, L. A., Noratto, G., Hingorani, L., Talcott, S. T., & Mertens-talcott, S. U., 2008, Protective Effects of Standardized Pomegranate (*Punica granatum* L.) Polyphenolic Extract in Ultraviolet-Irradiated Human Skin Fibroblasts Protective Effects of Standardized Pomegranate (*Punica granatum* L .) Polyphenolic Extract in Ultraviolet-Irradiate, *Journal of Agricultural*, **1**, 8434–8441.
- Palupi, A. D., & Marlina, S. D., 2004, Kandungan Minyak Atsiri Kalus Daun Nilam (*Pogostemon cablin* Benth), **6**, 99–103.
- Pant, B., & Manandhar, S., 2010, In Vitro Propagation of Carrot (*Daucus Carota* L.), *Scientific World*, **5**(5), 51–53.
- Pavel, I. Z., Duicu, O. M., Danciu, C., Dehelean, C., Bojin, F. M., Paunescu, V., Noveanu, L., 2015, Immune and bioenergetic profiling of a human dermal fibroblast cell line, *Revista de Chimie*, **66**(11), 1755–1758.
- Prastiandari, D., 2018, Uji Sitoprotektif Ekstrak Etanol dan Air Sel Punca Tanaman Wortel (*Daucus carota* L.) melalui perbaikan Siklus Sel *Human Dermal Fibroblast Adult* (HDFa) yang Diberi Paparan H₂O₂, *Skripsi*, Fakultas Farmasi, Universitas Gadjah Mada, Yogyakarta.

- Rabe, J. H., Mamelak, A. J., McElgunn, P. J. S., Morison, W. L., & Sauder, D. N., 2006, Photoaging: Mechanisms and repair, *Journal of the American Academy of Dermatology*, **55**(1), 1–19.
- Rabiei, K., Polyakov, A., Khodambashi, M., Sharafova, O., Kalashnikova, E., Hooshmand, S., & Omid, M., 2010, Carrot (*Daucus carota* L.) in vitro regeneration, *Vegetable Crops Research Bulletin*, **73**(1), 13–22.
- Ramachandran, S., Rajendra Prasad, N., & Karthikeyan, S., 2010, Sesamol inhibits UVB-induced ROS generation and subsequent oxidative damage in cultured human skin dermal fibroblasts, *Archives of Dermatological Research*, **302**(10), 733–744.
- Ravindra, P.V., M.S. Narayan, 2003, Antioxidant activity of the anthocyanin from carrot (*Daucus carota*) callus culture, *International Journal of Food Sciences and Nutrition*, **54** (5).
- Renshaw, S., 2017, *Immunohistochemistry and Immunocytochemistry : Essential Methods, Second Edition*, John Wiley & Sons, Ltd, United States.
- Riastri, A., 2019, Uji Efek Sitoprotektif Ekstrak Air Sel Punca Kecambah Tomat (*Solanum lycopersicum* L.) dan Analisis Ekspresi Sitokin TNF- α pada Sel Human Dermal Fibroblast Adult (HDFa) yang Diinduksi Sinar UV-B, *Skripsi*, Fakultas Farmasi, Universitas Gadjah Mada, Yogyakarta.
- Riss, T. L., Moravec, R. A., Niles, A. L., Duellman, S., Benink, H. A., Worzella, T. J., & Minor, L., 2004, Cell Viability Assays, *Assay Guidance Manual*, **740**, 33–43.
- Rusdianto, & Indrianto, A., 2012, Induksi kalus embriogenik pada wortel (*Daucus carota* L.) menggunakan 2,4-dichlorophenoxy acetic acid (2,4-D), *Jurnal Bionature*, **13**(2), 136–140.
- Sablowski, R., 2004, Plant and Animal Stem Cells: Conceptually Similar, Molecularly Distinct?, *Trends Cell Biol*, **14**, 605–611.
- Satoh, S., Sturm, A., Fujii, T., & Chrispeels, M. J., 1992, cDNA cloning of an extracellular dermal glycoprotein of carrot and its expression in response to wounding, *Planta*, **188**(3), 432–438.
- Saxena, A., Khosraviani, S., Noel, S., Mohan, D., Donner, T., & Hamad, A. R. A., 2016, *HHS Public Access*, **74**(1), 27–34.
- Scarano, A., Gerardi, C., D’Amico, L., Accogli, R., & Santino, A., 2018, Phytochemical Analysis and Antioxidant Properties in Colored Tiggiano Carrots, *Agriculture*, **8**(7), 102.

- Schmid, D., Schürch, C., Blum, P., & Belser, E., 2008, Plant Stem Cell Extract for Longevity of Skin and Hair, *SOFW-Journal*, **134**, 29–35.
- Setiaji, Arkan, 2019, Respon Pertumbuhan, Optimasi Medium Kultur, dan Aktivitas Antioksidan Pasca Perlakuan Cekaman Kekeringan secara *In Vitro* pada Kalus Tomat (*Solanum lycopersicum* L.), *Skripsi*, Fakultas Biologi, Universitas Gadjah Mada, Yogyakarta.
- Shi, J. H., Guan, H., Shi, S., Cai, W. X., Bai, X. Z., Hu, X. L., Hu, D. H., 2013, Protection against TGF- β 1-induced fibrosis effects of IL-10 on dermal fibroblasts and its potential therapeutics for the reduction of skin scarring, *Archives of Dermatological Research*, **305**(4), 341–352.
- Tokuda, M., Nagaoka, S., & Torii, M., 2003, Interleukin-10 receptor expression in human dental pulp cells in response to lipopolysaccharide from *Prevotella intermedia*, *Journal of Endodontics*, **29**(1), 48–50.
- Trehan, S., Michniak-Kohn, B., & Beri, K., 2017, Plant stem cells in cosmetics: current trends and future directions, *Future Science OA*, **3**(4), FSO226.
- Van Linthout, S., Miteva, K., & Tschöpe, C., 2014, Crosstalk between fibroblasts and inflammatory cells, *Cardiovascular Research*, **102**(2), 258–269.
- Vang, R., Gown, A. M., Barry, T. S., Wheeler, D. T., & Ronnett, B. M., 2006, Immunohistochemistry for estrogen and progesterone receptors in the distinction of primary and metastatic mucinous tumors in the ovary: An analysis of 124 cases, *Modern Pathology*, **19**(1), 97–105.
- Wang, Y., Cheng, C., Wang, L., Yang, J., Li, H., Cai, L., 2016, Establishment of a photoaging model in human dermal fibroblasts and study on photoaging-related biomarkers, **9**(5), 8846–8851.
- WHO, 2019, Ultraviolet radiation, <http://www.who.int/uv/faq/skincancer/en/index1/html>, 24 Maret 2019.
- Wong, T., McGrath, J. A., & Navsaria, H., 2007, The role of fibroblasts in tissue engineering and regeneration, *British Journal of Dermatology*, **156**(6), 1149–1155.
- Yulianingtyas, A., & Kusmartono, B., 2016, Optimasi Volume Pelarut Dan Waktu Maserasi Pengambilan Flavonoid Daun Belimbing Wuluh (*Averrhoa Bilimbi* L.), *Jurnal Teknik Kimia*, **10**, 58.