

## DAFTAR PUSTAKA

- Abdulkareem, I., 2013. Aetio-pathogenesis of Breast Cancer. *Niger. Med. J.*, 54(6): 371–375.
- Abdulkareem, I. & Zunmi, I., 2012. Review of Hormonal Treatment of Breast Cancer. *Niger. J. Clin. Pract.*, 15(1).
- Adlercreutz, H., Bannwart, C., Wahala, K., Makela, T., Brunow, G., Hase, T., Arosemena, P.J., Kellis, J. & Vickery, L.E., 1993. Inhibition of Human Aromatase by Mammalian Lignans and Isoflavonoid Phytoestrogens. *J. Steroid. Biochem. Mol. Biol.*, 44: 147-153.
- Almagro, M.C. & Vucic, D., 2012. The Inhibitor of Apoptosis (IAP) Proteins Are Critical Regulators of Signaling Pathway and Targets for Anti-Cancer Therapy. *Exp. Oncol.*, 34(3): 200-211.
- American Cancer Society, 2014. *Cancer Fact and Figures 2014*. Atlanta: American Cancer Society.
- Androutsopoulos, V.P., Tsatsakis, A.M. & Spandidos, D.A., 2009. Cytochrome P450 CYP1A1: Wider Roles in Cancer Progression and Prevention. *BMC Cancer*, 9(187): 1-17.
- Barnes, S., Boersma, B., Patel, R., Kirk, M., Darley-USmar, V.M., Kim, H. & Xu, J., 2000. Isoflavonoids and Chronic Disease: Mechanisms Of Action. *Biofactors*, 12: 209-215.
- Baxa, D.M. & Yoshimura, F.K., 2003. Genistein Reduces NF-kappaB in T Lymphoma Cells via a Caspase-Mediated Cleavage of I-Kappa-B-Alpha. *Biochem Pharmacol*, 66: 1009-1018.
- Biswas, D.K., Shi, Q., Baily, S., Strickland, I., Ghosh, S., Pardee, A.B. & Iglehart, J.D., 2004. Nf- $\kappa$ B Activation in Human Breast Cancer Specimens and Its Role in Proliferation and Apoptosis. *PNAS*, 101: 10137-10142.
- Boyle, P. & Levin, B., 2008. *World Cancer Report 2008*.
- Chen, W., Wang, D., Yen, R., Luo, J., Gu, W. & Baylin, S., 2005. Tumor Suppressor HIC1 Directly Regulates SIRT1 to Modulate p53-Dependent DNA-Damage Responses. *Cell*, (123), 437-448.
- Connolly, & Stearns, , 2012. Epigenetics as a Therapeutic Target in Breast Cancer. *J Mammary Gland Biol Neoplasia*, 17(3-4): 191-204.
- Currier, N., Solomon, S.E., Demicco, E., Chang, D.L.F., Farago, M., Ying, H., Dominiguez, I., Sonenshein, G.E., Cardiff, R.D., Xiao, Z.-X.J., Sherr, D.H. & Seldin, D.C., 2005. Oncogenic Signaling Pathways Activated in DMBA-Induced Mouse Mammary Tumors. *Toxicologic Pathology*, 33: 726-737.

- Dahlan, M.S., 2014. *Statistik Untuk Kedokteran dan Kesehatan*. 6th ed. Jakarta: Epidemiologi Indonesia.
- Dai, J., Wang, Z., Sun, D., Lin, R. & Wang SQ, 2007. SIRT1 Interacts with p73 and Suppresses p73-Dependent Transcriptional Activity. *J. Cell. Physiol.*, 210(1): 161-166.
- Davis, J., Kucuk, O. & Sarkar, F., 1999. Genistein Inhibits NF-kappaB Activation in Prostate Cancer Cells. *Nutr Cancer*, 35: 167-174.
- Deng, C.-X., 2009. SIRT1, Is It a Tumor Promoter or Tumor Suppressor? *Int. J. Biol. Sci.*, 5(2): 147-152.
- Dewi, A.E., Herwiyanti, S. & Andwi, Y., 2014. *Pengaruh Pemberian Senyawa Turunan Isoflavon 1,2-Epoksi-3[3-[3,4-Dimetoksifenil]-4H-1-Benzopiran-4-on] Propana terhadap Proliferasi Sel Alveolus Paru pada Tikus Putih (Sprague Dawley) Model Kanker yang Diinduksi DMBA*. Skripsi. Yogyakarta: Universitas Gadjah Mada.
- Duran, A., Diaz-M, M.T. & Moscat, J., 2003. Essential Role RelA Ser311 Phosphorylation by PKC in Nf-kappaB Transcriptional Activation. *The EMBO Journal*, 22(15): 3910-3918.
- Elangovan, S., Ramachandran, S., Venkatesan, N., Ananth, S., Gnana-Prakasam, J.P., Martin, P.M., Browning, D.D., Shoenlein, V.P., Prasad, P.D., Ganapathy, V. & Thangaraju, M., 2011. SIRT1 is Essential for Oncogenic Signalling by Estrogen/Estrogen-alfa in Breast Cancer. *Cancer Res*, 21(71): 6654-6664.
- Escarcega, R., Fuentes-Alexandro, S., Garcia-Carrasco, M., Gatica, A. & Zamora, A., 2007. The Transcription Factor Nuclear Factor-kappa B and Cancer. *Clin Oncol (R Coll Radiol)*, 19(2): 154-161.
- Folman, Y. & Pope, G., 1966. The Interaction in The Immature Mouse of Potent Oestrogens with Coumestrol, Genistein and Other Utero-Vaginitrophic Coumpounds of Low Potency. *J. Endocrinol.*, 34: 215-225.
- Hairil, A.A., Matsjeh, S. & Anwar, C., 2010. *Sintesis Senyawa Isoflavon dari Minyak Daun Cengkeh dan Uji Aktivitas Kanker secara in vitro*. Disertasi. Yogyakarta: Universitas Gadjah Mada.
- Haub, P. & Meckel, T., 2015. A Model based Survey of Colour Deconvolution in Diagnostic Brightfield Microscopy: Error Estimation and Spectral Consideration. *Scientific Report*, (12096).
- He, F.-j. & Chen, J.-Q., 2013. Consumption of Soybean, Soy Foods, Soy Isoflavones, and Breast Cancer Incidence: Different between Chines Women and Women in Western Countries and Possibles Mechanisms. *Food Science and Human Wellness* 2, 2: 146-161.

- Herwiyanti, S., 2015. *Potensi Senyawa 1,2-Epoksi-3-[3-(3,4-Dimetoksifenil)-4H-Benzopiran-4On]Propana sebagai Antikanker Kajian In Vitro Akitvitas Molekuler Sel Kanker Payudara T47D dan MCF-7 serta Aktivitas Molekuler In Vivo pada Hewan Model yang Diinduksi 7,12-Dimetilbenz (a)*. Disertasi. Yogyakarta: Universitas Gadjah Mada.
- Holloway, R.K., Barbieri, A., Malyarchuk, S., Saxena, M., Kurepa, N.A., Mehl, C.M., Wang, A., Gu, X. & Pruitt, K., 2013. SIRT1 Positively Regulates Breast Cancer Associated Human Aromatase (CYP19A1) Expression. *Mol. Endocrinol.*, 27(3): 480-490.
- Injarab, F.D., Herwiyanti, S. & Muchayat, S., 2014. *Ekspresi COX-2 pada Hepar Tikus Putih [Sprague Dawley] yang diinduksi DMBA dan Paparan Senyawa 1,2 Epoksi-3-[3(3.4-Dimetoksifenil)4H-1-Benzopiran-4-ON] Propane*. Skripsi. Yogyakarta: Universitas Gadjah Mada.
- Johnston, S. & Dowsett, M., 2010. The Epigenetic of Breast Cancer. *Mol. Oncol.*, 4: 242-254.
- Kalle, A.M., Mallika, A., Badiger, J., Alinakhi, Talukdar, P. & Sachchinadand, 2010. Inhibition of SIRT1 by a Small Molecule Induces Apoptosis in Breast Cancer Cells. *Biochem. Bioph. Res. Co.*, 401: 13-19.
- KEMENKES RI, 2015. *InfoDATIN, STOP KANKER*. Kementerian Kesehatan RI Pusat Data dan Informasi.
- Kikuno, N., Shiina, H., Urakami, S., Kawamoto, K., Hirata, H., Tanaka, Y., Majid, S., Igawa, M. & Dahiya, R., 2008. Genistein Mediated Histone Acetylation and Demethylatio Activates Tumor Suppressor Genes in Prostate Cancer Cells. *Int. J. Cancer*, 123: 552-560.
- Kuiper, G.G., Lemmen, J.G., Carlsson, B., Corton, J.C., Safe, S.H., Saag, P.T.V., Burg, B.V. & Gustafsson, J.-A., 2013. Interaction of Estrogen Chemicals and Phytoestrogens with Estrogen Receptor Beta. *Endocrinology*, 139.
- Kuo, S.J., Lin, H.-y., Chien, S.-y. & Chen, D.-r., 2013. SIRT1 Suppresses Breast Cancer Growth Through Downregulation of Bcl-2 Protein. *Oncol. Rep.*, 30: 125-130.
- Lee, Y.-K. & Park, O.J., 2013. Soybean Isoflavone Genistein Regulates Apoptosis Through Nf-kB Dependent and Independent Pathways. *Exp. Toxicol. Pathol.*, 65(1-2): 1-6.
- Li, Y., Ahmed, F., Ali, S., Philip, P.A., Kucuk, O. & Sarkar, F.H., 2005. Inactivation of Nuclear Factor kappaB by Soy Isoflavone Genistein Contributes to Increased Apoptosis Induced by Chemotherapeutic Agents in Human Cancer Cells. *Cancer Res.*, 65(23): 6934-6942.
- Lin, Z. & Fang, D., 2013. The Role of SIRT1 in Cancer. *Gene and Cancer*, XX(X): 1-8.

- Lo, P.-K. & Sukumar, , 2008. Epigenomics and Breast Cancer. *Pharmacogenomics*, 9(12): 1879-1902.
- Loukovaara, M., Carson, M., Palotie, A. & Adlercreutz, H., 1995. Regulation of Sex Hormone-Binding Globulin Production by Isoflavonoids and Patterns of Isoflavonoid Conjugation in HepG2 Cell Cultures. *Steroids*, 60: 656-661.
- Makela, S., Poutanen, M., Lehtimaki, J., Kostian, M.L., Santti, R. & Vihko, R., 1995. Estrogen-Specific 17 $\beta$ -Hydroxysteroid Oxidoreductase Type I (E.C.1.1.1.62) as a Possible Target for The Action of Phytoestrogens. *Proc. Soc. Exp. Biol. Med.*, 208: 51-59.
- Matthews, J. & Gustafsson, J.-A., 2006. Estrogen Receptor and Aryl Hydrocarbon Receptor Signalling Pathways. *Nuclear Receptor Signaling*, 4: 1-4.
- McDonald, M., Herts, R.P. & Lowenthal, S.W., 2008. *The Burden of Cancer*. USA: Pfizer Medical Division.
- Messina, M. & Barnes, S., 1991. The Role of Soy Product in Reducing Risk of Cancer. *J. Natl. Cancer. I.*, 83: 541-546.
- Messina, M.J. & Wood, E.C., 2008. Soy Isoflavones, Estrogen Therapy, and Breast Cancer Risk: Analysis and Commentary. *Nutr. J.*, 7(17).
- National Cancer Institute, 2014. *National Cancer Institute at the National Institute of Health*. [Online] Available at: <http://www.cancer.gov/cancertopics/types/breast> [Accessed 16 Desember 2014].
- North, B.J. & Verdin, E., 2004. Sirtuins: Sir2-related NAD-Dependent Protein Deacetylases. *Genome. Biol.*, 5: 224.
- Padauleng, N., Purnomosari, D., Herwiyanti, S., Harjadi, Irianawati & Widyarini, S., 2013. The Relationship Between Sirtuin 1 (SIRT1) Expression and Tumor Size, Proliferating Cell Nuclear Antigen (PCNA) Expression and Histological Grading in Rat Breast Carcinoma Induced by dimethylbenz(alfa)anthracene (DMBA). *J. Med Sci*, 45(4): 151-158.
- Pilsakova, L., Riecanaky, I. & Jagla, F., 2010. The physiological action of isoflavone phytoestrogens. *Physiol. Res.*, 59: 651-664.
- Rahman, S.A., Shaban, N., Haggag, A., Awad, D., Bassiouny, A. & Talaat, I., 2015. Inhibition of Nf- $\kappa$ B, Bcl-2 and COX-2 Gene Expression by an Extract of Eruca Sativa Seeds during Rat Mammary Gland Carcinogenesis. *Asian Pac J Cancer Prev.*, 16(18): 8411-8418.
- Rasbach, K.A. & Schnellmann, R.G., 2008. Isoflavones Promote Mitochondrial Biogenesis. *JPET*, 325: 536-543.
- Richardson, F.L., 1951. Further Studies on The Mammary Gland Development in Male Mice at Nine Weeks of Age. *Anat Rec.*, 111(4): 669-693.

- Robert, D.W., Doerge, D.R., Churchwell, M.I., Costa, G.G., Marques, M.M. & Tolleson, W.H., 2004. Inhibition of Extrahepatic Human Cytochromes P450 1A1 and 1B1 by Metabolism of Isoflavones Found in *Trifolium pratense* (Red Clover). *J. Agric. Food Chem*, 52(21): 6623-6632.
- Rowlands, J.C., He, L., Hakkak, R., Ronis, M.J.J. & Badger, T.M., 2001. Soy and Whey Proteins Downregulate DMBA-Induced Liver and Mammary Gland CYP1 Expression in Female Rats. *J. Nutr*, 131(12): 3281-3287.
- Saarinen, N.M., Bingham, C., Lorenzetti, S., Mortensen, A., Makela, S., Panttinen, P., Serensen, I.K., Valsta, L.M., Virgili, F., Vollmer, G., Warri, I. & Zierau, O., 2006. Tools to Evaluate Estrogenic Potency of Dietary Phytoestrogens: A Consensus Paper From The EU Thematic Network "Phytohealth" QLKI-2002-2453. *Gene & Nutrition*, 3(4): 143-158.
- Sas, L., Lardon, F., Vermeulen, P.B., Hauspy, J., Dam, P.V., Pauwels, P., Dirix, L.Y. & Leare, S.J.V., 2012. The Interaction between ER and Nf- $\kappa$ B in Resistance to Endocrine Therapy. *Breast Cancer Research*, 14: 212.
- Saxena, S., Jyoti & Sharma, A., 2014. Soybean Seeds- An Approach to Treatment of Breast Cancer. *World Journal of Pharmacy and Pharmaceutical Science*, 3(8): 1972-1982.
- Sen, R. & Baltimore, D., 2006. Multiple Nuclear Factor Interact with Immunoglobulin Enhancer Sequences. *Journal Immunobiology*, 177: 7485-7496.
- Shertzer, H.G., Puga, A., Chang, C.-y., Smith, P., Nebert, D.W., Setchell, K.D.R. & Dalton, T.P., 1999. Inhibition of CYP1A1 Enzyme Activity in Mouse Hepatoma Cell Culture by Soybean Isoflavones. *Chemico-Biological Interaction*, 123: 31049.
- Shostak, K. & Chariot, A., 2011. Nf- $\kappa$ B, Stem Cell and Breast Cancer: The Links Get Stronger. *Breast Cancer Res.*, 13(214).
- Siegel, R., Ma, J., Zou, Z. & Jemal, A., 2014. Cancer Statistics 2014. *Ca Cancer J Clin*, 64: 9-29.
- Soni, S., Vaidya, S., Jain, A.K. & Sharma, A., 2013. A Comparative Study on Anticancer Potential of Different Extracts of *Mucuna Pruriens* Linn. Seeds Against Sertoli (GC) & ZR-75 Cell Lines. *IJPCBS*, 3(2): 305-314.
- Speirs, V. & Walkers, R.A., 2007. New Perspectives Into The Biological and Clinical Relevance of Oestrogen Receptors in The Human Breast. *J Pathol*, 499-506: 211.
- Tabary, O., Escotte, S., Coutil, J.P., Hubert, D., Dusser, D., Puchelle, E. & Jasquot, J., 1999. Genistein Inhibits Constitutive and Inducible Nf- $\kappa$ B Activation and Decreases IL-8 Production by Human Cystic Fibrosis Bronchial Gland Cells. *Am J Pathol*, 155: 473-481.

- Thompson, A., Brennan, , Cox, , Gee, , Harcourt, D., Harris, , Harvie, , Holen, , Howell, , Nicholson, & Steel, M., 2008. Evaluation of The Current Knowledge Limitations in Breast Cancer Research: A Gap Analysis. *Breast Cancer Research* 2008, 10(2).
- Trombino, A., Near, R., Matulka, R., Yang, S., Hafer, L., Toselli, P., Kim, D., Rogers, A., Sonenshein, G. & Sherr, D., 2000. Expression of The Aryl Hydrocarbon Receptor/Transcription Factor (AhR) and AhR-regulated CYP1 gene transcripts in a rat model o mammary tumorigenesis. *Breast Cancer Res. Treat.*, 63(2): 117.
- Varghese, F., Bukhari, A.B., Malhotra, R. & De, A., 2014. IHC Profiler: An Open Source Plugin for the Quantitative Evaluation and Automated Scoring of Immunohistochemistry Images of Human Tissue Samples. *PLoS ONE*, 9(5): 1-11.
- Vaziri, H., Dessain, S., Eaton, E.N., Imai, S., Frye, A.R., Pandita, T., Guarente, L. & Weinberg, R.A., 2001. hSIR2(SIRT1) Functions As An NAD-Dependent p53 Deacetylase. *Cell*, 107: 149-159.
- Vermeulen, L., Wilde, G.D., Damme, P.V., Berghe, W.V. & Haegeman, G., 2003. Transcriptional Activation of the Nf-kappaB p65 by Mitogen- and Stress-activated Protein Kinase -1 (MSK1). *EMBO Journal*, 2(6): 1313-1324.
- Wicaksono, S.A., Herwiyanti, S. & Ari, A.Y.S., 2015. *Pengaruh Pemberian Senyawa Turunan Isoflavon 1,2-Epoksi-3-[3-(3,4-Dimetoksifenil)-4H-1-Benzopiran-4-On] Propane Terhadap p53 pada Model Kanker Payudara Tikus Sprague Dawley yang Diinduksi DMBA*. Skripsi. Yogyakarta: Universitas Gadjah Mada.
- Wong, S. & Weber, J., 2007. Deacetylation of The Retinoblastoma Tumour Suppressor Protein by SIRT1. *Biochem. J.*, (407), 451-460.
- Wu, A., YU, M., Tseng, C. & Pike, M., 2008. Epidemiology of Soy Exposures and Breast Cancer Risk. *Brit. J. Cancer*, 98: 9-14.
- Xing, D., Oparil, S., Yu, H., Gong, K., Feng, W., Black, J., Chen, Y.-F. & Nozell, S., 2012. Estrogen Modulates NFkB Signalling by Enhancing IkbA Levels and Blocking p65 Binding at the Promoters of Iflammatory Genes via Estrogen Receptor-B. *PLoS ONE*, VII(6): 1-10.
- Yeung, F., Hoberg, J.E., Ramsey, C.S., Keller, M.D., Jones, D.R., Frye, R.A. & Mayo, M.W., 2004. Modulation of NF-kappaB-Dependent Transcription and Cell Survival by SIRT1 Deacetylase. *The EMBO Journal*, 23: 2369-2380.