

## DAFTAR PUSTAKA

Adibhatla, R. M. dan Hatcher, J. F., 2010. Lipid Oxidation and Peroxidation in CNS Health and Disease: From Molecular Mechanisms to Therapeutic Opportunities. *Antioxidant & Redox Signaling*, 12(10): 125-69.

American Heart Association (AHA), 2015. Atherosclerosis - 2015 Updated. Available at:  
[http://www.heart.org/HEARTORG/Conditions/Cholesterol/WhyCholesterolMatters/Atherosclerosis\\_UCM\\_305564\\_Article.jsp](http://www.heart.org/HEARTORG/Conditions/Cholesterol/WhyCholesterolMatters/Atherosclerosis_UCM_305564_Article.jsp).

Andres-Manzano, M.J., Andres, V, Dorado, B., 2015. Oil Red O and Hematoxylin and Eosin Staining for Quantification of Atherosclerosis Burden in Mouse Aorta and Aortic Root. *Methods Mol Biol.*, 1339:85-99.

Anping, C., Dongdan, Z., Ruofeng Q., Weiyi M., and Yingling, Z., 2013. Lipoprotein Associated Phospholipase A<sub>2</sub> (Lp-PLA<sub>2</sub>): A Novel and Promising Biomarker for Cardiovascular Risks Assessment. *Hindawi Publishing Corporation*, 32(5): 323-31.

Badan Pengawas Obat dan Makanan Republik Indonesia (BPOM), 2014. Pedoman Pembuatan Preparat Histopatologi pdf, Peraturan Kepala Badan Pengawas Obat dan Makanan Republik Indonesia Nomor 7 Tahun 2014 Tentang Pedoman Uji Toksisitas NonKlinik secara Invivo: 135-42.

Badimon, L., Vilahur, G., Pedro, T., 2009. Lipoprotein, Platelets, and Atherothrombosis. *Rev. Es. Cardiol*, 62(10): 1161-78.

Bitar, R., Moody, A.R., Leung, G., Symons, S., Crisp, S., Butany, J., et al., 2008. In vivo 3D high-spatial-resolution MR imaging of intraplaque hemorrhage. *Radiology*, 249(1): 259-267.

Bobryshev, Y.F., Killingsworth, M.C., Lord, R.S.A., and Grabs, A.J., 2008. Matrix Vesicles in the Fibrous Cap of Atherosclerotic Plaque: Possible Contribution to Plaque Rupture. *Journal of Cellular and Molecular Medicine*, 12(5B): 2073-82.

Bonizzi, G., Karin, M., 2004. The Two NF-kappa B Activation Pathways and Their Role in Innate and Adaptive Immunity. *Trends Immunol*, 25(6):280-8.

Boudewijn, K., Jan Willem, F., Elte, and Cabezas, M.C., 2013. Dyslipidemia in Obesity: Mechanisms and Potential Targets. *Nutrients*, 5(4): 1218-40.

Brower, M., Grace M., Kotz C.M., Koya, V.,2015. Comparative Analysis of Growth Characteristics of Sprague-Dawley Rats Obtained From Different Sources. *Lab Anim. Res.*, 31(4): 166-73.

Buettner, R., Scholmerich, J., and Bollheimer, L.C.,2007. High Fat Diets: Modeling The Metabolic Disorder of Human Obesity, Adiposity, and Dyslipidemia. Consensus Statement From The National Lipid Association, *Journal of Clinical Lipidology*, 7(4): 303-83.

Burke JE, Dennis EA. 2008. Phospholipase A2 Structure/Function, Mechanism and Signaling. American Society for Biochemistry and Molecular Biology. *Journal of Lipid Research*, 50(Suppl) : S237–42.

Detopoulou, P., Nomikos, T., Fragopoulou, E., Panagiotakos, D.B., Pitsavos, C., Stefanadis, C.; Antonopoulou, S. Lipoprotein Associated Phospholipase A2 (Lp-PLA2) Activity, Platelet-Activating Factor Acetylhydrolase (PAF-AH) in Leukocytes and Body Composition in Healthy Adults. *Lipids Health and Disease*, 8(19): 1-10.

Doyle B., dan Caplice N., 2007. Plaque Neovascularization and Antiangiogenic Therapy for Atherosclerosis. *Journal the American College of Cardiology*, 49(21): 2073-80.

Fischer A.H, Jacobson K.A., Rose J, Zeller R., 2008. Hematoxylin and eosin staining of tissue and cell sections. *Cold Spring Harbor Protocols Abstract*, pdb.prot4986.

Gadja, A.M., 2008. High Fat Diets for Diet Induced Obesity Model. *J. Diets Research Inc.*, 277(7): 1-3.

Gautier, J.C., Gury, T., Guffroy, M., Masson, R., Khan-Malek, R., Hoffman, D., 2014. Comparison Between Male and Female Sprague-Dawley Rats in the Response of Urinary Biomarkers to Injury Induced by Gentamicin. *J. Toxicol Pathol.*, 42(7): 1105-16.

Gossl, M., Versari D., Lerman L.O., Chade A.R., Beighley P.E., Erbel R., and Ritman E.L.,2009. Low Vasa Vasorum Densities Correlate with Inflammation and Subintimal Thickening : Potential Role in Location--Determination of Atherogenesis. *Atherosclerosis*, 206(2):362–8.

Gregory, A. and Michael, C., 2009. Arteriosclerosis: Rethinking the Current Classification. *Archives of Pathology and Laboratory Medicine*, 133(8): 1309–16.

Guyton, A.C. and Hall, J.E., 2006. *Textbook of Medical Physiology*. 11<sup>th</sup> ed. Philadelphia, PA, USA: Elsevier Saunders.



Heriansyah, T., Wihastuti, T.A., Anita, K.W., Iskandar, A., Suhendra, R.B., Setiabudi, P.A., Sishartami, L.W., 2015, Atherogenesis Inhibition by Darapladib Administration in Dyslipidemia Model Sprague-Dawley Rats. *National Journal of Physiology, Pharmacy and Pharmacology*, 6(1): 52-8.

Hermann, J., Lerman, L.O., Rodriguez-Porcel, M., Holmes, D.R., Richardson, D.M., Ritman, E.L., Lerman, A., 2001. Coronary Vasa Vasorum Neovascularization Precedes Epicardial Endothelial Dysfunction in Experimental Hypercholesterolemia. *Cardiovasc Res.*, 51:762-6.

Hirota, K., and Semenza G.L., 2006. Regulation of Angiogenesis by Hypoxia Inducible Factor 1. *Crit Rev Oncol Hematol*, 59(1):15-26.

Hong, Y. M., 2010, Atherosclerotic Cardiovascular Disease Beginning in Childhood. *Korean Circulation Journal*, 40(1):1-9.

Hoglund, V.J., Dong, X.R., Majesky, M.W., 2010. Neointima Formation: a Local Affair. *Arterioscler Thromb Vasc Biol*, 30(10):1877-9.

Hu, C., Tompson, D., Magee, M., Chen Q., Liu, Y. M., Zhu, W., Zhao, H., et al., Single and Multiple Dose Pharmacokinetics, Pharmacodynamics and Safety of the Novel Lipoprotein-Associated Phospholipase A<sub>2</sub> Enzyme Inhibitor Darapladib in Healthy Chinese Subjects: An Open Label Phase-1 Clinical Trial. *J. PLoS One*, 10(10): 1-15.

Iribarren, C., 2006. Lipoprotein-Associated Phospholipase A<sub>2</sub> and Cardiovascular Risk State of the Evidence and Future Directions. *Arteriosclerosis Thromb Vasc Biol.*, 26(1): 5-6.

Itabe, H., Obama, T., Kato, R., 2011. The Dynamics of Oxidized LDL during Atherogenesis. *Journal of Lipids*, 2011 (2011): 1-9

Jarvilehto, M., Tuohimaa, P., 2009. Vasa Vasorum Hypoxia: Initiation of Atherosclerosis. *Med. Hypotheses*, 73(1):40-1.

Jellinger, P.S., Donald A.S., Adi, E.M., Yehuda, H., Helena, F.R., Mark, D.S., et al., 2012. AACE Lipid and Atherosclerosis Guidelines. *Endocr Pract.*, 18(Suppl 1): 1-58.

Junyan, X., Xiaotong, L., Guo-Ping, Shi., 2015. Vasa Vasorum in Atherosclerosis and Clinical Significance. *International Journal of Molecular Sciences*, 16: 11574-608.

Karakas, M., and Koeing, W., 2010. Lp-PLA<sub>2</sub> Inhibitor The Atherosclerosis Panacea?. *Pharmaceutical Sciences Journal*, 3(5): 1360-73.

Khan-Merchant, N., Penumetcha, M., Meilhac, O., Parthasarathy, S., 2002. Oxidized Fatty Acids Promote Atherosclerosis only in the Presence of Dietary

Cholesterol in Low-Density Lipoprotein Receptor Knockout Mice. *The Journal of Nutrition*, 132(11): 3256–62.

Khurana, R., Moons, L., Shafi, S., Luttun, A., Collen, D., Martin, et al., 2005. Placental Growth Factor Promotes Atherosclerotic Intimal Thickening and Macrophage Accumulation. *Circulation*, 111(21):2828-36.

Koenig, W., Twardella, D., Brenner, H., 2006. Lipoprotein-Associated Phospholipase A2 Predicts Future Cardiovascular Events in Patients With Coronary Heart Disease Independently of Traditional Risk Factors, Markers of Inflammation, Renal Function, and Hemodynamic Stress. *Arteriosclerosis, Thrombosis, and Vascular Biology*, 26(7): 1586–93.

Kzhyshkowska, J., Neyen, C., Gordon, S., 2012. Role of Macrophage Scavenger Receptors in Atherosclerosis. *Cardiovascular Immunology*, 217(5): 492–502.

Lee, H.Y., Oh, E., Kim, S.D., Seo, J.K., Bae, Y.S., 2014. Oxidized Low-Density Lipoprotein-Induced Foam Cell Formation is Mediated by Formyl Peptide Receptor 2. *Biochem Biophys Res Commun*, 443(3):1003-7.

Ley, K., Miller, Y.L., 2011. Monocyte and Macrophage Dynamics During Atherogenesis. *Arterioscler Thromb Vasc Biol.*, 31(7):1506-16

Libby, P., Ridker P.M., Hansson G.K., 2011. Progress and Challenges in Translating the Biology of Atherosclerosis. *Nature*, 473(7347):317-25.

Madjid, M., Ali, M., Willerson, J.T., 2010. Lipoprotein-Associated Phospholipase A2 as a Novel Risk Marker for Cardiovascular Disease. *Texas Heart Institute Journal*, 37(1):25-39.

Marjorie E. Z., Michele A. M., dan Grant N. P., 2010. Augmented Cell Cycle Protein Expression and Kinase Activity in Atherosclerotic Rabbit Vessels. *Exp Clin Cardiol.*, 15(4): 139–44.

Mansbach, C.M., Gorelick, F., 2007. Development and Physiological Regulation of Intestinal Lipid Absorption II. Dietary lipid Absorption, Complex Lipid Synthesis, and the Intracellular Packaging and Secretion of Chylomicrons. *American Journal of Physiology*, 293(4):G645–50.

Matsumo, T., Kobayashi, T., Kamata, K., 2007. Role of Lysophosphatidylcholine (LPC) in Atherosclerosis. *Curr. Med. Chem.*, 14(30):3209–20.

Mcintyre, T.M., Prescott, S.M., Stafforini, D.M., 2009. The Emerging Roles of Acetylhydrolase. *Journal of Lipid Research*, 50(suppl):S255–9.

Mendis, S., Puska, P; Norrving, B., 2011. Global Atlas on Cardiovascular Disease Prevention and Control. *World Health Organization*, 1-153



Miller, M., 2009. Dyslipidemia and cardiovascular risk: the importance of early prevention. *An International Journal of Medicine*, 102(9):657-67

Mohler, E.R., Ballantyne, C.M., Davidson, M.H., Hanefeld, M., Ruilope, L.M, et al., 2008. The Effect of Darapladib on Plasma Lipoprotein Associated Phospholipase A2 Activity and Cardiovascular Biomarkers in Patients with Stable Coronary Heart Disease or Coronary Heart Disease Risk Equivalent: The Results of a Multicenter, Randomized, Double Blind, Placebo-Controlled Study. *J. American College Cardiology*, 51(17): 1632–41.

Moulton, K.S., Vakili, K., Zurakowski, D., Soliman, M, Butterfield, C., Sylvin, E., et al., 2003. Inhibition of Plaque Neovascularization Reduces Macrophage Accumulation and Progression of Advanced Atherosclerosis. *Proceedings of the National Academy of Sciences of USA*, 100(8):4736-41.

Moulton, K.S., 2006. Angiogenesis in Atherosclerosis: Gathering Evidence Beyond Speculation. *Curr Opin Lipidol*, 17(5):548-55.

Mudau, M., Genis, A., Lochner, A., Strijdom, H., 2012. Endothelial Dysfunction: the Early Predictor of Atherosclerosis. *Cardiovasc J. Afr.*, 23(4): 222-31.

Nelson, R.H., 2013. Hyperlipidemia as a Risk Factor for Cardiovascular Disease. *Prim Care*. 40(1): 195–211.

Nishi, K., Itabe, H., Uno, M., Kitazato, K.T., Horiguchi, H., Shinno, K, et al., 2002. Oxidized LDL in Carotid Plaques and Plasma Associates with Plaque Instability. *Arteriosclerosis Thrombosis, and Vascular Biology*, 22(10): 1649-54.

Pereira, A.H., 2010. Rupture of Vasa Vasorum and Intramural Hematoma of the Aorta: a Changing Paradigm. *J. Vasc. Bras.*, 9(2): 57-60.

Perhimpunan Dokter Spesialis Kardiovaskular Indonesia (PERKI). 2013. *Pedoman Tatalaksana Dislipidemia di Indonesia*. Edisi ke 1. Jakarta: Centra Communication.

Pirillo, A., Norata, G.D., 2013. LOX-1, OxLDL, and Atherosclerosis. *Hindawi Publishing Corporation*, 2013: 1-12.

Potente, M., Gerhardt, H., Carmeliet, P., 2011, Basic and Therapeutic Aspects of Angiogenesis. *J. Cell*, 146(6): 873-87.

Ridwan, Endi. 2013. Etika Pemanfaatan Hewan Percobaan dalam Penelitian Kesehatan. *J. Indo Med Assoc.*, 63(3): 114.

Riset Kesehatan Dasar (RISKESDAS), 2013. Badan Penelitian dan Pengembangan Kesehatan Kementerian Kesehatan Republik Indonesia 2013. Jakarta.

Ritman, E.L., and Lerman, A., 2007. Role of Vasa Vasorum in Aterial Disease : A Re-emerging Factor. *Current Cardiology Reviews*, 3(1): 43-55.

Ritman, E.L., and Lerman, A, 2007. The Dynamic Vasa Vasorum. *Cardiovascular Research*, 75: 649-58.

Rosenson, R.S., and Stafforini, D.M., 2009. Modulation of Oxidative Stress, Inflammation, and Atherosclerosis by Lipoprotein Associated Phospholipase A2. *Journal of Lipid Research*, 53(9):1767-82.

Serruys, P.W., García, H.M., Buszman, P., Erne P., Verheye, S. et al., 2008. Effects of the Direct Lipoprotein Associated Phospholipase A2 Inhibitor Darapladib on Human Coronary Atherosclerotic Plaque. *Circulation AHA Journal*, 118(11): 1172–82.

Shah, P.K. 2007. Molecular Mechanisms of Palque Instability. *Current Opinion in Lipidology*.18(5): 492-9.

Shi, Y., Zhang,P., Zhang, L., Osman, H., Macphee, C., Zalewski, A., et al., 2007. Role of Lipoprotein-associated Phospholipase A2 in Leukocyte Activation and Inflammatory Responses. *Atherosclerosis*, 191(1): 54-62.

Silva I.,Mello A.P., Damasceno N.R., 2011. Antioxidant and Inflammatory Aspects of Lipoprotein-Associated Phospholipase A2 (Lp-PLA2): a Review. *Lipids in Health and Disease*; 10(170): 1-10.

Sluimer, J.C., Kolodgie, F.D., Bijnens, A.P., Maxfield, K., Pacheco, E.,Kutys, B., et al. 2009. Thin-walled Microvessels in Human Coronary Atherosclerotic Plaques Show Incomplete Endothelial Junctions Relevance of Compromised Structural Integrity for Intraplaque Microvascular Leakage. *J. American College Cardiol.*,53(17): 1517–27.

Singh, R.B., Mengi, S.A., Xu, Y.J, Arneja, A.S., Dhalla, N.S., 2002. Pathogenesis of Atherosclerosis: A Multifactorial Process. *Experimental and Clinical Cardiology*, 7(1):40-53.

Slevin, M., Krupinski, J., Badimon, L.,2009. Controlling the Angiogenic Switch in Developing Atherosclerotic Plaques: Possible Targets for Therapeutic Intervention. *Journal of Angiogenesis Research*, 1(4): 1-10.

Sorace, P., Lafontaine, T., Thomas, T.R., 2006. Know the Risk: Lifestyle Management of Dyslipidemia. *ACSM'S Health & Fitness Journal*,10(4): 18-25.

Srinivasan, K., Viswanad, B., Asrat, L., Kaul, C.L., Ramarao, K.P.. 2005. Combination of High Fat Diet-fed and Low-Dose Streptozotocin-treated Rat: a Model for Type 2 Diabetes and Pharmacological Screening. *Pharmacological Research*, 52(4): 313-20.



Subbotin, V.M., 2012. Neovascularization of Coronary Tunica Intima (DIT) is the Cause of Coronary Atherosclerosis. Lipoproteins Invade Coronary Intima Via Neovascularization from Adventitial Vasa Vasorum, But Not from the Arterial Lumen: a Hypothesis. *Theoretical Biology and Medical Modelling*, 9(11): 1-22.

Sudhir, K., 2005. Clinical Review: Lipoprotein-associated Phospholipase A<sub>2</sub>, A Novel Inflammatory Biomarker and Independent Risk Predictor for Cardiovascular Disease. *The J of Clin Endocrinol & Metab.*, 90(5):3100-5.

Tedgui A., and Mallat Z., 2006. Cytokines in Atherosclerosis: Pathogenic and Regulatory Pathways. *Physiological Reviews*, 86(2): 515-81.

Ten Kate, G.L., Sijbrands, E.J, Valkema, R, Ten Cate, F.J, Feinstein, S.B., Van der Steen, A.F., et al., 2010. Molecular imaging of inflammation and intraplaque vasa vasorum: a step forward to identification of vulnerable plaques? *Journal of Nuclear Cardiology*, 17(5): 897-912

Tomkin G.H., and Owens, D., 2012. LDL as a Cause of Atherosclerosis. *Atherosclerosis & Thrombosis Journal*, 5(1): 13–21.

Tselepis, A.F., Rizzo, M., Goudevenos, I.A., 2011, Therapeutic Modulation of Lipoprotein-Associated Phospholipase A<sub>2</sub> (Lp-PLA<sub>2</sub>). *Current Pharmaceutical Des.*, 17(33): 3656-61.

Vogiatzi, G., Tousoulis, D., Stefanadis, C., 2009. The Role of Oxidative Stress in Atherosclerosis. *Hellenic J. Cardiol.*, 50: 402-9.

Wang, T., Palucci, D., Law, K., Yanagawa, B., Yam, J., Butany, J. 2012. Atherosclerosis: Pathogenesis and Pathology. *Diagnostic Histopathology*, 18(11): 461-7.

Wang W, Li J, Yang D, Xu W, Zha R, Wang Y., 2010. OxLDL stimulates lipoprotein-associated phospholipase A<sub>2</sub> expression in THP-1 monocytes via P13K and p38 MAPK pathways. *Cardiovascular Research*, 85(4): 845-852.

Wihastuti, T.A., Sargowo, D., Tjokropawiro, A., Permatasari, N., Widodo M.A., Soeharto, S., 2014. Vasa Vasorum Anti-angiogenesis Through H<sub>2</sub>O<sub>2</sub>, HIF-1 $\alpha$ , NF- $\kappa$ B, and Inos Inhibition by Mangosteen Pericarp Ethanolic Extract (*Garcinia mangostana* Linn) in Hypercholesterol-diet-Given Rattus Norvegicus Wistar strain. *Vascular Health and Risk Management*, 10: 523–31.

Wilensky, R.L., and Macphee. 2009. Lipoprotein Associated Phospholipase A<sub>2</sub> and Atherosclerosis. *Current Opinion in Lipidology*, 20(5): 415–20.

Wilensky, R.L, Shi, Y., Mohler, E.R., Hamamdzc, D., Burget, M.E., Postle, A., et al., 2008. Inhibition of Lipoprotein-associated Phospholipase A<sub>2</sub> Reduces

Complex Coronary Atherosclerotic Plaque Development. *Nature Medicine*, 14(10):1059-66.

World Health Organization (WHO),2015. Cardiovascular disease (CVDs). Available at: <http://www.who.int/mediacentre/factsheets/fs317/en/>.

Zhang H., Zhang J.Y., Sun T., Shen D.L., He F., Dang Y., et al., 2013. Amelioration of atherosclerosis in apolipoprotein E-deficient mice by inhibition of lipoprotein-associated phospholipase A2. *Clin. Invest. Med.*, 36(1): 32-41.

Zhonghua, 2014. Atherosclerosis and Atheroma Plaque Rupture: Normal Anatomy of Vasa Vasorum and Their Role Associated with Atherosclerosis. *Hindawi Publishing Corporation*, 2014: 1-12.

