



DAFTAR PUSTAKA

- Anderson, H.L., I.E. Brodsky, and N.S. Mangalmurti. 2019. The evolving erythrocyte: RBCs as modulators of innate immunity. *The Journal of Immunology*. 201(5): 1343–1351.
- Arif, A.A., A.D. An-Nizamiya, C. Putri, M. Nashrurrokhman, N. Husna, Mulyati, S. Hadisusanto, and N.S.N. Handayani. 2020. Comparison between three molecular diagnostics for the identification of heterozygous hemoglobin E. *Pakistan Journal of Biological Sciences*. 23(1): 17-26.
- Ayu, R.N.P. 2015. Indeks RDW dan Mentzer sebagai uji skrining diagnosis thalassemia. *Medical Journal of Lampung University*. 4(7): 7-12.
- Bhardwaj, U., Y. Zhang, F. Lorey, L.L. McCabe, and E.R.B. McCabe. 2005. Molecular genetic confirmatory testing from newborn screening samples for the common African-American, Asian Indian, Southeast Asian, and Chinese β -Thalassemia Mutations. *American Journal of Hematology*. 78: 249–255.
- Boyer, R. 2012. *Biochemistry Laboratory: Modern Theory and Techniques* 2nd ed. Pearson Education, Inc. New Jersey, pp. 71-72.
- Buttaro, T.M., J. Trybulski, P. Polgar-Bailey, and J. Sandberg-Cook. 2017. *Primary Care: A Collaborative Practice* 5th ed. Elsevier. Missouri, pp. 1284-1285.
- Cao, A. and R. Galanello. 2010. Beta-thalassemia. *Genetics in Medicine*. 12: 61-76.
- Chaban, B., K.M. Musil, C.G. Himsworth, and J.E. Hill. 2009. Development of *cpn60*-based real-time quantitative PCR assays for the detection of 14 *Campylobacter* species and application to screening of canine fecal samples. *Applied and Environmental Microbiology*. 75(10): 3055-3061.
- Dorak, M.T. 2006. *Real-time PCR*. Taylor & Francis Group. New York, pp. 21, 40, 146.
- Firani, N.K. 2018. *Mengenali Sel-Sel Darah dan Kelainan Darah*. UB Press. Malang, p. 25.
- Flint, J., R.M. Harding, A.J. Boyce, and J.B. Clegg. 1998. The population genetics of the haemoglobinopathies. *Baillière's Clinical Haematology*. 11(1): 1–51.
- Ford, J. 2013. Red blood cell morphology. *International Journal of Laboratory Hematology*. 35(3): 351-357.
- Fucharoen, S. and P. Winichagoon. 1992. Thalassemia in Southeast Asia: problems and strategy for prevention and control. *Southeast Asean J Trop Med Public Health*. 23(4): 647-655.
- Galanello, R. and R. Origa. 2010. Beta-thalassemia. *Orphanet Journal of Rare Diseases*. 5(11): 1-15.
- Handayani, N.S.N. and R. Purwanto. 2015. CD35 (DEL C) frameshift mutation in exon 2 of β -globin gene on β -thalassemia carriers. *Biomedical Engineering*. 1(1): 19-23.
- Handayani, N.S.N., N. Husna, G. Rahmil, R.A. Ghifari, L. Widyawati, and I. Lesmana. 2021. Splice-site and frameshift mutations of β -globin gene found in thalassemia carrier screening in Yogyakarta Special Region, Indonesia. *The Indonesian Biomedical Journal*. 13(1): 55-60.
- Handayani W. dan A.S. Haribowo. 2008. *Buku Ajar Asuhan Keperawatan dengan Gangguan Sistem Hematologi*. Penerbit Salemba Medika. Jakarta, pp. 2-3.



- Hao, L. T., S. Pissard, P. Hung-Van, C. Lacombe, T.D. Hanh, M. Goossens, and T.D. Kiet. 2001. Molecular analysis of β -thalassemia in south Vietnam. *Hemoglobin*. 25(3): 305–309.
- Harahap, M.R. 2018. Elektroforesis: analisis elektronika terhadap biokimia genetika. *CIRCUIT: Jurnal Ilmiah Pendidikan Teknik Elektro*. 2(1): 21-26.
- Hewajuli, D.A. dan N.L.P.I. Dharmayanti. 2014. Perkembangan teknologi *reverse transcriptase-polymerase chain reaction* dalam mengidentifikasi genom *Avian Influenza* dan *Newcastle Diseases*. *Wartazoa*. 24: 16-29.
- Hideyati, N.I., N. Wijayanti, and N.S.N. Handayani. 2020. Detection of HBB: c. 92+ 5G> C and HBB: c. 108delC mutations in β -thalassemia carriers using high-resolution melting analysis. *Molecular Biology Reports*. 47(7): 5665-5671.
- Kawthalkar, S.M. 2018. *Essentials of Clinical Pathology* 2nd ed. Jaypee Brothers Medical Publishers Pvt. Limited. New Delhi, pp. 241-242.
- Little, S., J. L. Haines, B.R. Korf, C.C. Morton, C.E. Seidman, J.G. Seidman, D.R. Smith. 2001. Amplification-refractory mutation system (ARMS) analysis of point mutations. *Current Protocols in Human Genetic*. 7(1): 9.8.1-9.8.12.
- Levin, R. E. 2004. The application of real-time PCR to food and agricultural systems: A review. *Food Biotechnology*. 18(1): 97-133.
- Manning L.R., J.E. Russell, J.C. Padovan, B.T. Chait, A. Popowicz, R.S. Manning, and J.M. Manning. 2009. Human embryonic, fetal, and adult hemoglobins have different subunit interface strengths. Correlation with lifespan in the red cell. *Protein Science*. 16(8): 1641-1658.
- Maulid, D.Y. dan M. Nurilmala. 2015. DNA barcoding untuk autentikasi produk ikan tenggiri (*Scomberomorus* sp.). *Jurnal Akuatika*. 6(2): 154-160.
- Mehta, A.B. and Hoffbrand, A.V. 2005. *Haematology at A Glance* 2nd ed. Blackwell Publishing. Malden, p. 11.
- Mishra, K. K., P. Patel, D.S. Bhukhanvala, A. Shah, dan K. Ghosh, 2017. A multiplex ARMS PCR approach to detection of common β -globin gene mutations. *Analytical Biochemistry*. 537: 93–98.
- Muncie Jr, H.L. and J.S. Campbell. 2009. Alpha and beta thalassemia. *American Family Physician*. 80(4): 339-344.
- Musallam, K.M., A.T. Taher, and E.A. Rachmilewitz. 2012. β -thalassemia intermedia: a clinical perspective. *Cold Spring Harbor Perspectives in Medicine*. 2(7): 1-15.
- NCBI. 2010. HBB hemoglobin subunit beta [*Homo sapiens* (human)]. <https://www.ncbi.nlm.nih.gov/gene/3043>. Diakses pada tanggal 2 November 2021 pukul 21.55.
- Nongbri, S.R.L., H.K. Verma, B.V. Lakkakula, and P.K. Patra. 2017. Presence of atypical beta globin (HBB) gene cluster haplotypes in sickle cell anemia patients of India. *Revista brasileira de hematologia e hemoterapia*. 39(2): 180-182.
- Ntziora, F., D. Paraskevis, C. Haida, E. Manesis, G. Papatheodoridis, S. Manolakopoulos, I. Elefsiniotis, T. Karamitros, A. Vassilakis, and A. Hatzakis. 2013. Ultrasensitive amplification refractory mutation system real-time PCR (ARMS RT-PCR) assay for detection of minority hepatitis B virus-resistant strains in the era of personalized medicine. *Journal of Clinical Microbiology*. 51(9): 2893-2900.



- Old, J., A. Eleftheriou, M. Angastinotis, R. Galanello, C.L. Hartevelde, M. Petrou, and J. Traeger-Synodinos. 2013. *Prevention of Thalassaemias and Other Haemoglobin Disorders, 2nd Edition*. Thalassaemia International Federation. Nicosia, pp. 25-32.
- Orkin, S.H. and H.H. Kazazian Jr. 1984. The mutation and polymorphism of the human β-globin gene and its surrounding DNA. *Annual Review of Genetics*. 18(1): 131-171.
- Orkin, S.H., D.G. Nathan, D. Ginsburg, A.T. Look, D.E. Fisher, and S. Lux. 2015. *Nathan and Oski's Hematology and Oncology of Infancy and Childhood 8th ed.* Elsevier. Philadelphia, pp. 725-727, 750.
- Pocock, G., C.D. Richards, and D.A. Richards. 2006. *Human Physiology*. Oxford University Press. Oxford, p. 314.
- Porth, C. 2010. *Essentials of Pathophysiology: Concepts of Altered Health States*. Lippincott Williams & Wilkins. Philadelphia, p. 280.
- Rujito, L. 2019. *Talasemia: Genetik Dasar dan Pengelolaan Terkini*. Universitas Jenderal Soedirman. Purwokerto, pp. 14-20, 39-54.
- Rogers, K. 2011. *The Human Body Blood Physiology and Circulation*. Britannica Educational Publishing. New York, pp. 11-12, 19, 35.
- Sambrook, J. and W.R. David. 1989. *Molecular Cloning: A Laboratory Manual*. Cold Spring Harbor Laboratory Press. New York, pp. 56-61.
- Setiadji, V., B. Lubis, A.K. Aman, and H. Hariman. 2019. The hemoglobin, RDW, and mean corpuscular values in patients with beta-thalassemia/hemoglobin E disease and beta-thalassemia trait. *Indonesian Journal of Clinical Pathology and Medical Laboratory*. 25(3): 343-348.
- Suwannakhon, N., T. Pangeson, T. Seeratanachot, K. Mahingsa, A. Pingyod, W. Bumrungpakdee, and T. Sanguansermsri. 2019. Noninvasive prenatal screening test for compound heterozygous beta thalassemia. *Hematology Reports*. 11(8124): 65-69.
- Taher, A.T., D.J. Weatherall, and M.D. Cappellini. 2018. Thalassaemia. *The Lancet*. 391(10116): 155-167.
- Viprakasit, V., C. Lee-Lee, Q.T. Chong, K.H. Lin, and A. Khuhapinant. 2009. Iron chelation therapy in the management of thalassemia: the Asian perspectives. *International Journal of Hematology*. 90(4): 435- 445.
- Wahidiyat, I. 2003. Thalassemia dan permasalahannya di Indonesia. *Sari Pediatri*. 5(1): 2-3.
- Widyastuti, D.A. dan F. Nurdyansyah. 2017. Deteksi molekuler mikroorganisme patogen pada bahan pangan dengan metode RT-PCR. *Jurnal Ilmu Pangan dan Hasil Pertanian*. 1(1): 80-89.