



Title: Development of Educational DNA Analysis Kit for Forensic Application

Go-Woon Choi¹, You-Jin Hong¹, Seung-Gyun Woo², So-Yeon Lee², Yong-Bin Eom^{1,2, *}

¹Department of Biomedical Laboratory Science, College of Medical Sciences, Soonchunhyang University, Asan, Chungnam, 336-745 Korea.

²Departments of Medical Science, College of Medical Sciences, SoonChunHyangUniversity, Asan, Chungnam, 336-745Korea

Human identification has played an important role in forensic science for the past two decades and it will continue to do so. DNA profiling method of human identification is the use of molecular genetic methods to determine the exact genotype of a DNA sample to distinguish one human being from another. The present study sought to develop an introductory triplex PCR system and to increase the awareness of the education of forensic science.

The kit contains the 3 STR loci HumAmel for a sex determining, HumvWA and HumFGA of CODIS STR loci for human identity testing. STR loci were selected effectively to improve the power of discrimination of the testing. This study was validated by a series of tests including optimized multiplex PCR conditions, precision and accuracy. This kit allows starting police officer and students who interesting in forensic science to conduct state-of-the-art DNA profiling techniques and to develop an understanding of how these techniques are performed in real-world forensic science labs.

Biography

Yong-Bin Eom* has completed his Doctor at the age of 32 years from Yonsei University. Reschr.Asan Inst. Life Scis., 1997-98; Forensic DNA analyst Nat. Forensic Svc., 1998-2009. Prof. Korea Nazarene University, 2009-13. He is the director of Dept. of Biomedical Laboratory Science, Soonchunhyang University. He has published more than 30 papers in reputed journals and has been serving as an ISO/TC212 bd. mem. Korean Agy.Tech. and Stds. and editorial board member of Biomed.Sci. Lett. and Korean J. Clin. Lab. Sci.

omnibin@sch.ac.kr