

DETEKSI LOKUS FGA PADA DNA SALIVA UNTUK IDENTIFIKASI PERSONAL PADA ODONTOLOGI FORENSIK MOLEKULER

(Detection of FGA Loci in DNA Saliva for Personal Identification on Molecular Forensic Odontology)

ABSTRACT

Background : Nowadays, saliva is a useful source of DNA because saliva contains cells which is consisted of DNA inside. One of the locus that can be found in DNA is FGA. FGA is one of DNA loci included on CODIS 13. CODIS 13 is a system formed by FBI that contain of 13 DNA locus based on STR. FGA was found at 322 – 444 bp. FGA can be used for personal identification trough PCR method. This could be a new breakthrough on molecular forensic odontology.

Purpose : The aim of this study was to prove that FGA loci can be detected in DNA saliva so it can be used for personal identification. **Method :** Saliva which is collected from 6 subjects were put on a fabric for stain saliva preparation. The fabric that known contained saliva was closed by Phadebas α - amylase Paper. The colour changing into blue indicated the presence of α - amylase enzyme on the fabric. Phadebas forensic paper test was closed into the fabric that had a colour changing to isolate DNA. Phadebas forensic paper test cut and processed by phenol chloroform method. FGA amplification was done using PCR method. The result of both FGA detected in saliva and blood were compared. **Result :** This study shown that FGA on DNA of 6 saliva samples were found in 322 – 444 bp. As known that FGA on DNA blood also found in 322 – 444 bp, so there was equality between both of DNA sources. **Conclusion :** FGA was detected on DNA saliva so it can be used for personal identification.

Key word : Stain saliva, α - amylase enzyme, FGA loci, personal identification