

***α- AMYLASE TEST PAPER UNTUK DETEKSI KEBERADAAN
STAIN SALIVA SEBAGAI SPESIMEN DNA PADA
AMPLIFIKASI GEN AMELOGENIN***

***(α- AMYLASE TEST PAPER FOR DETECTING STAIN SALIVA
EXISTENCE AS DNA SPECIMEN ON AMELOGENIN GENE
AMPLIFICATION)***

ABSTRACT

Backgorund : Nowadays, saliva is evolving as a diagnostic marker because it contains nucleated cells which can be used to detect DNA. One of the genes that can be found in DNA is amelogenin gene, that can be found at chromosome X and chromosome Y. Amelogenin gene location in the sex chromosome can be used for sex determination on human. Sex determination is conducted through PCR methods. This could be breakthrough on odontology forensic. **Purpose** : The aim of this study was to develop a DNA extraction based on the detection of α-amylase activity on the surface of the fabric which is exposed to saliva using Test Paper. **Method** : Saliva which collected from known sex, are put on the fabric to create a stain. The surface of fabric that contains saliva closed with Phadebas Paper. The color change to blue indicates the presence of α- amylase enzyme. Phadebas Paper contains saliva is cut and processed to DNA isolation. After that, amelogenin amplification is done using PCR method. **Result** : This study shown accuracy 100% between samples and result from amelogenin band which derived from 8 μ l and 32 μ l. **Conclusion** : Amelogenin gene amplification can be used for sex determination using α- amylase enzyme in stain saliva with 100% accuracy.

Key word: Stain saliva, α- amylase enzyme, amelogenin gene, sex determination