

Evaluation of skin surface sample as an alternative source to traditional samples to collect DNA reference sample

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No doubt that DNA analysis in different cases needs DNA reference sample because the process of DNA analysis depends on comparison between two profiles. One of them the reference sample. We choose the skin surface because the collection of sample will be easy, non invasive, and more stable. In this research we tested the efficiency of ethyl alcohol 70%, and Salicylic acid 10% as a swab moistening solution for increasing amount of DNA collected from skin surface and determined the most appropriate position to collect samples to be between the forearm and fingers, by estimating DNA concentration extracted from these places which were collected by swabs and adhesive tapes. The results revealed that skin surface samples seemed to be a good alternative source to collect DNA reference samples. DNA reference samples which was collected from skin surface by swabs moistened with ethyl alcohol 70% was better than swabs moistened with salicylic acid 10%. Forearm is the most appropriate position to collect reference sample. And the adhesive tapes seemed to be a good tool to collect the reference sample from fingers.

Based on the findings of this study the researcher comes up with some of most important recommendation, first: possibility to use cotton swabs moistened by ethyl alcohol to collect DNA reference sample from fingers and forearm area, and possibility to use adhesive tape to collect reference samples by putting fingerprint on it. Second: dissemination of the study on DNA laboratories to benefit from the findings with regard to the possibility of replacing traditional reference samples with skin swabs.

Biography

Mohammed Harb Albujja has completed his Bachelor degree in pharmacy at the age of 23 years from Al Azhar University-Gaza and Master degree of Forensic biology from Naif Arab University for Security Sciences (NAUSS). He has worked in pharmacy field for 13 years. He continues his efforts to complete Doctoral study in pharmacogenetic field or any field related to genetics.

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