

## **Copan 4N6FLOQSwabs™ Collection Guidelines are Improving Evidence Investigations<sup>1</sup>**

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Copan 4N6FLOQSwabs™ (4N6FS) are innovative devices for crime scene evidence collection. 4N6FS, consisting of nylon fiber strands attached to molded plastic, have high hydrophilic activity that allows efficient sample collection and release. 4N6FS, produced only by profiled staff, are ETO treated and DNase, RNase and human DNA free. 4N6FS are specially produced for Genetics and Crime scene, the latter treated with a bacteria-static agent to prevent microbial proliferation. The 4N6FS are available in a short format in a wider tube; therefore the tip is never in contact with the tube's inner surfaces. The aim of this study was to develop proper collection guides to improve DNA recovery from crime scenes.

Saliva and blood traces were prepared on different surfaces. Samples were collected from each of the prepared surfaces with 4N6FS using different methods. Saliva and blood from donors were used as references. Nucleic acid was extracted with the PrepFiler® quantified with the Quantifiler® kit on the 7500 PCR system and profiled with the Identifiler Plus® kit (by Life Technologies).

Quantity of DNA obtained with all collection procedures was compared to the references. The collection procedure that detected similar amounts of DNA as the reference samples was used to prepare the collection guides. The guidelines were assessed by several crime scene labs and lastly revised by a USA University Professor of Political Science and Law Enforcement. Copan 4N6FLOQSwabs™ collection guidelines are improving evidence investigation, shared and available for all the users.

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