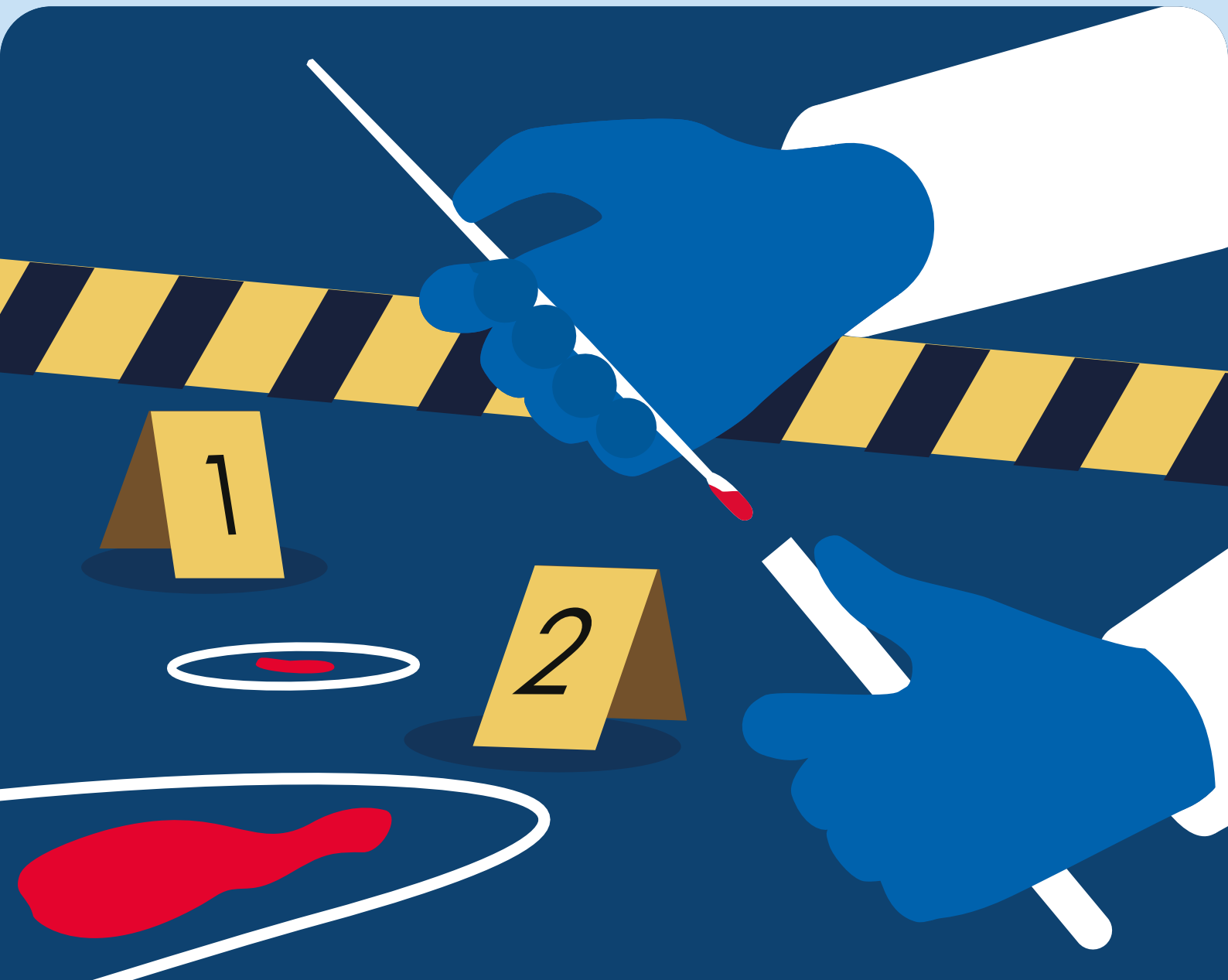


Forensic investigation begins with sample collection

4N6FLOQSwabs®



4N6FLOQSwabs for highest DNA collection and recovery

The relevance of any investigation is determined by the type and quality of the sample submitted to the forensic lab

Optimize the **efficiency** of target collection

4N6FLOQSwabs represent a breakthrough to guarantee that even smallest amounts of DNA can be collected and remain available for testing.

Rapid absorption

Sprayed-on Nylon fibers arranged in a uniform perpendicular fashion ensure a quick, capillarity-driven sample uptake and optimize the collection of epithelial cells.

More than 90% sample release

The absence of a disorganized fiber structure trapping the sample allows a superior elution of the biological specimen. The sample is instantaneously and automatically released when 4N6FLOQSwabs are mixed with assay reagents, placed in buffer solutions or onto solid absorbent substrates, e.g., QIAcard® FTA®.

Compatibility with different DNA extraction methods

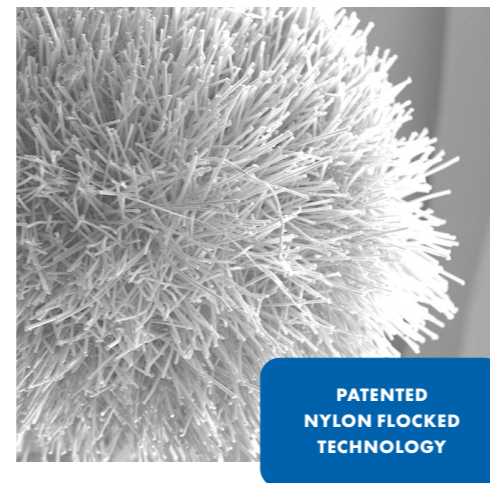
4N6FLOQSwabs have been validated for compatibility with numerous DNA extraction methods, e.g., EZ1&2 DNA Investigator Kit.

Compatibility with direct amplification

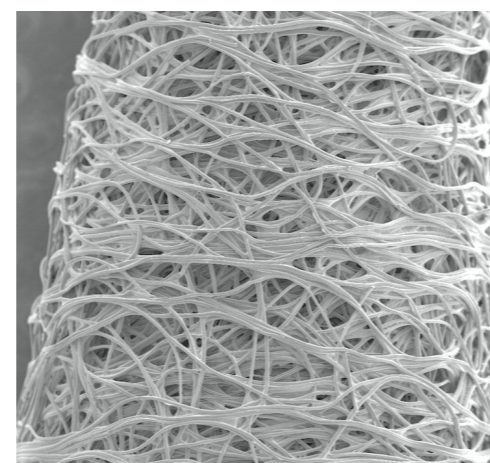
4N6FLOQSwabs are compatible with the Investigator Casework GO! Kit to maximize recovery of DNA from trace or touch samples.

EO Treatment

All 4N6FLOQSwabs are Ethylene Oxide treated and ISO18385 compliant.



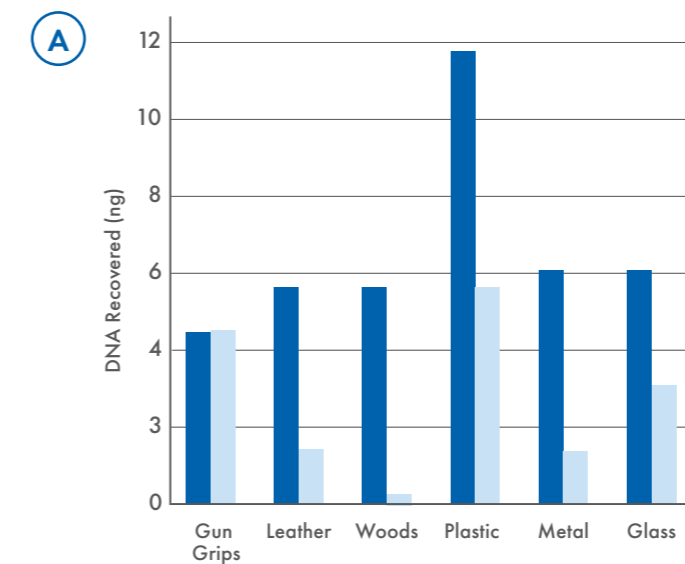
FLOQSwabs Nylon fibers are sprayed on. Swabs have no inside thereby allowing the sample to be instantly and entirely released.



Traditional fiber swabs show a disorganized fiber structure trapping the sample and blocking quick and efficient absorption.

Suitable for all traces found at a crime scene including any environmental traces

DNA recovery with forensic DNA extraction kits from FLOQSwabs versus cotton swabs



Applications

- Casework analysis
- Sexual assault
- Forensic genetics
- Paternity tests
- Research genotyping
- Evidence collection
- Others

Targeted samples

- Epithelial cells
- Saliva
- Sweat
- Skin
- Semen
- Blood stains
- Others

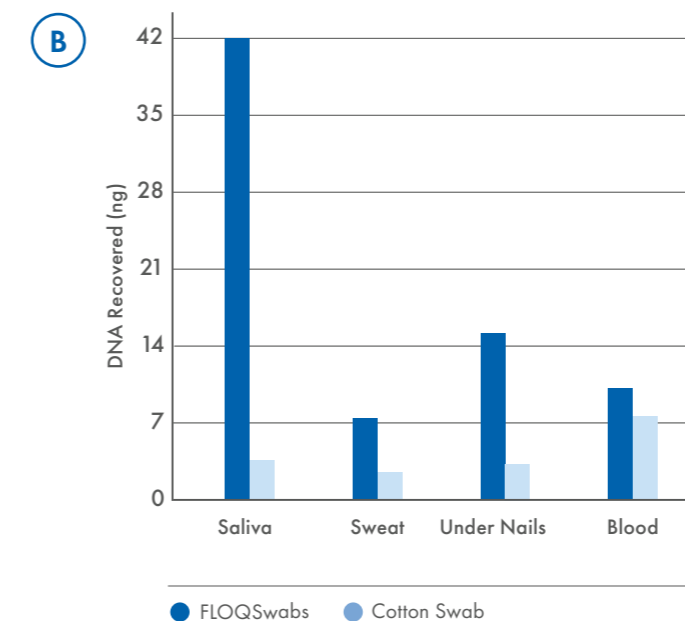


Figure 1. (A) Comparison of DNA recovered from trace blood samples on various solid substrates with FLOQSwabs or cotton swabs. (B) Comparison of DNA recovered from various common forensic trace samples with FLOQSwabs or cotton swabs.

4N6FLOQSwabs common features at a glance

Unique fiber tip

- Rapid absorption and release of sample
- Maximum elution and transfer

Pre-molded breakpoint on the swab shaft

- Smooth breaking of the swab
- Convenient and safe
- Breakpoint fits standard vials and cuvettes

Breaking point

20 mm breaking point is available on all 4N6FLOQSwabs

Solid plastic applicator shaft

- Flexibility during sample collection
- No entrapment of the sample inside the shaft

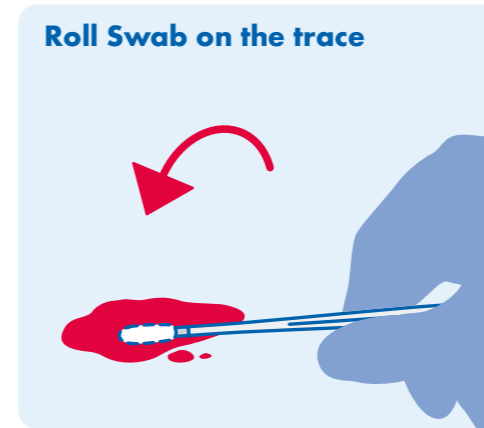
Cells are easily collected between the fibers

The 20 mm breaking point designed on 4N6FLOQSwabs is compatible with the Investigator Lyse&Spin Basket Kit.

Biological evidence can be collected using dry swabs or swabs moistened with water

Wet sample

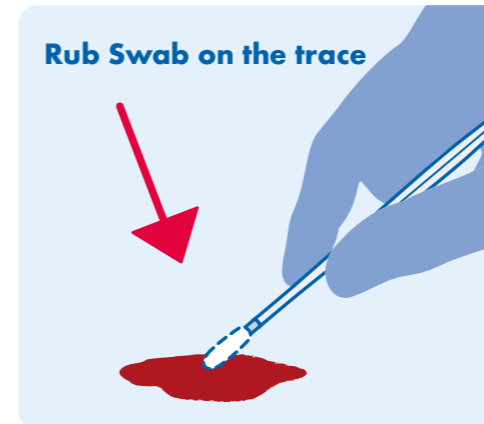
Roll Swab on the trace



To collect a wet sample, place the tip of the swab in the substance and roll the swab over the sample until it is completely collected.

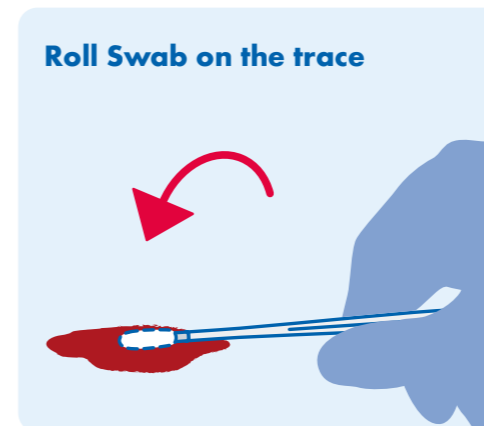
Dry sample

Rub Swab on the trace



To collect a dry sample, moisten one side of the swab with a drop of nuclease-free water leaving the other side dry. Rub the trace with the tip of the swab.

Roll Swab on the trace



Roll the moist side over the substance to collect most of the sample, then rub with the dry side until it is completely collected.

After collection, environmental factors such as heat and humidity can provide a growth environment for microbes leading to DNA degradation. Evidence collected with the swab should be allowed to air dry before it is packaged in an evidence bag.

4N6FLOQSwabs are available in three formats



Dry tube

The plastic tube guarantees swab integrity and avoids the risk of sample contamination during transport.



Tube with active drying system

This system ensures sample drying in the tube preventing microbial growth.



Peelpouch

4N6FLOQSwabs with molded breakpoint are packaged individually in a convenient peelpouch.



Dry tube

After collection, the regular size 4N6FLOQSwabs can be inserted back into the transport tube and sent to the testing laboratory.

Data Matrix code

Every 4N6FLOQSwabs tube is identified with a Data Matrix code bearing uniquely assigned numeric data for safe and easy sample traceability and tracking. The Data Matrix code is printed on the lid and the tube to exclude the chance of mix up after sample collection.



The active drying system prevents microbial growth DNA stability is guaranteed for 12+ months at RT and -80°C



Tube with active drying system

4N6FLOQSwabs tube with active drying system includes integrated drying.

Data Matrix code

Active drying system

Molecular sieve particles contained in the tube stopper actively absorb water molecules and dry out the collected sample. The sample is dried in the tube and microbial growth is prevented. Aluminum foil barrier packaging ensures the molecular sieve drying action is activated only upon pouch opening.



Drying time of 100 µl saliva collected with 4N6FLOQSwabs Active drying vs. without active drying

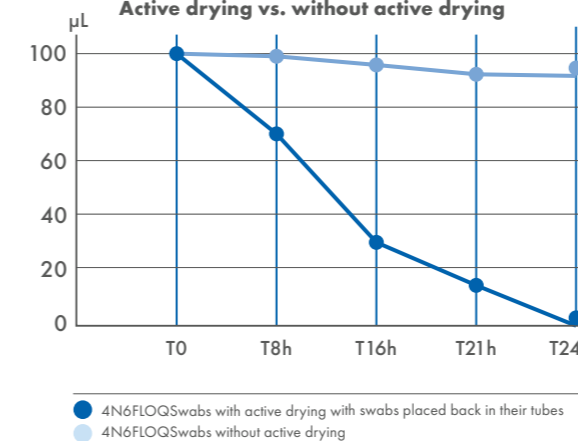


Figure 2. Comparison of drying of a 100 µl saliva sample collected with 4N6FLOQSwabs with and without active drying. The 100 µl of saliva sample is completely dry after storage in the tube with active drying for 24 hours.

Table 1. DNA of saliva samples collected and stored in 4N6FLOQSwabs tubes with active drying system remains stable at room temperature for at least 12 months.

TIME POINT	SALIVA DATA		
	ng DNA/swab	degradation index	STR profile
Time zero	1.70	0.72	complete 3/3
4 months RT	1.12	0.66	complete 3/3
6 months RT	0.99	0.68	complete 3/3
12 months RT	0.95	0.71	complete 3/3

Ordering Information

Product	Cat. no.
Swabs	
4N6FLOQSwabs in peelpouch (100)	WB100100
4N6FLOQSwabs in dry tube (100)	WB100101
4N6FLOQSwabs w/a drying system (50)	WB100102
Compatible Accessories	
Indicating Desiccant Pack (1000)	WB100003
Multi Barrier Pouch Reseal 7 x 7.37 (50)	WB100024
Related products	
Investigator Casework GO! Kit	386546
Investigator Lyse&Spin Basket Kit (50)*	19597
EZ1 & 2 DNA Investigator Kit (48)	952034
Investigator Quantiplex Pro Kit (200)	387216
Investigator 24plex QS Kit (100)*	382415
Investigator ESSplex SE QS Kit (100)*	381575
Investigator Argus Y-28 QS Kit (100)*	383625

* Larger kit sizes available; please inquire.



Learn more about our sample collection solutions for confidence in your evidence at www.qiagen.com/product-categories/human-id-and-forensics/sample-collection



Learn more about our Investigator workflows for human identity and forensic testing at www.qiagen.com/product-categories/human-id-and-forensics/investigator-solutions



4N6FLOQSwabs meet ISO 18385 requirements. For more Forensic Grade quality, see www.qiagen.com/forensicgrade

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