



# STK® Sperm Tracker STK Spray

## DIRECTION FOR USE

V1.7 – Update: January 7<sup>th</sup>, 2022  
Ref.: STK\_Spray\_notice\_EN\_V1.7

### Symbol definition:

 Catalogue reference: **AXO-STK-SP10**

 Batch number

 Recommended storage temperature

 Do not use if packaging is damaged

 Keep away from light

 Single use

 Expiry date

 See User Guide

 AXO Science S.A.S.  
36 Bis rue de Bruxelles  
69100 Villeurbanne  
France

### 1. Product purpose:

- STK Spray is a presumptive test for the detection of human male semen. It is based on the specific detection of human Acid Phosphatase.
- STK Spray intend to be used indoor and outdoor, on floor, soil, hard surfaces like furniture, plastics, leather, metal, leaves, etc.
- For textile (clothes, beddings...), we recommend instead to use STK Lab impregnated paper (Ref. AXO-STK-9240, AXO-STK-9210, AXO-STK-A3-20) to avoid contrast issue when lighting with UV light.
- STK Spray MUST NOT be sprayed directly on human skin.

### 2. Principle of the test:

STK spray is a vaporizable mixture that allows specific detection of male seminal fluid traces with the later objective of realizing DNA analysis of collected samples. Reagents react specifically with Acid Phosphatase enzyme present in human seminal fluid. Presence of this enzyme on tested evidence react with STK Spray. Specific obtained stain can be visualized using a 365/366nm UV light with visible light filter.

STK Spray does not damage DNA. It does not alter potential DNA extraction and PCR amplification. STK Spray allows specific localization of the area where semen can be found on studied evidence.

### 3. Provided material:

Pouches of reagent powder. Each pouch must be dissolved in 100 ml (~3.5 US fl oz) of clean water (e.g demineralized).

### 4. Not provided necessary material:

- Demineralized water.
- Sprayer for dissolved solution (e.g.: Ref AXO-STK-PV1). Use a sprayer that allow fine mist and prevent large droplets of water.
- UV lamp 365/366nm with visible light filter, 6 Watt power minimum (e.g.: Vilber VL 6.L; CAMAG UV lamp 4) and UV protective glasses (please see UV lamp User Guide). Please, pay attention that each UV lamp may be slightly different from one another (background signal, signal power etc). It is advised to check light detection capabilities with samples beforehand and always use a positive control for each analysis (type: Ref AXO-STK-PC10).

### 5. Protocol :

#### Beforehand:

- It is necessary to wear UV protective glasses.
- It is advised to wear appropriate laboratory protective equipment (gloves, facemask, hat, lab coat).

### **Modus operandi:**

It is advised to screen the scene first with the UV lamp to see what can react to the UV light and then be able to discriminate those signals from STK Spray signal.

a) **Prepare solution in the sprayer:** dissolve content of one "STK Spray" pouch within 100 ml of demineralized water. Wait 30 seconds for total reagent dissolution. If necessary, shake lightly.

b) **Use the sprayer containing STK Spray solution :**

Moisten the search area: Spray lightly, horizontally, ahead of you, about 20 cm (~8 inches) away from the target, in a side to side sweeping motion. Do not aim directly at the ground.

Adjust the volume of vaporized solution according to the more or less absorbent nature of analyzed surface. As an indication, a consumption of 10 ml of solution per square meter (0.35 US fl oz per 10 square feet) on a non-absorbent surface is normal. Do not overspray the target, it does not improve detection and could dilute targeted DNA.

c) **Wait a few moments:** as an indication, and according to the absorbency or not of the support, from 10 seconds to 2 minutes. S'équiper des lunettes de protection UV puis allumer la lampe UV.

d) Put your UV protective glasses then switch on UV lamp.

e) **Revelation:** in the dark, slowly sweep the area by positioning the UV lamp at a distance of about 25 cm (~10 inches) from studied target. Total darkness is not required but it can facilitate detection of semen traces.

### **6. Results interpretation:**

- Presumptive test is **positive**: a blue fluorescent signal is visible under recommended UV light.

- Presumptive test is **negative**: no signal is detected under recommended UV light.

### **7. Disposal:**

No particular recommendation. Please refer to your local waste management policy and regulation.

### **8. Contraindications:**

Adding chemical or biological products not mentioned in the protocol may alter test effectiveness.

A signal close to a positive result may occur in the presence of residual bleach, oxidizers, household detergents or mold. These weaker signals are easily recognizable and cannot be interpreted as a positive result by a trained operator.

### **9. Storage and stability / shelf life:**

Keep away from light and heat. It is advised to store product at a temperature below +35°C (+95°F) and not to exceed this temperature for a long period. If storage conditions are not guaranteed, make sure product works normally by using a positive signal.

#### **Conservation before opening:**

Expiry date is on product packaging. Do not use after this date.

#### **Conservation after dissolution:**

STK Spray can be used 30 seconds after dissolution and must be used within 24 hours. Do not keep or reuse opened pouch.

### **INFORMATION AND TECHNICAL SUPPORT**

Email: [support@axoscience.com](mailto:support@axoscience.com)

Phone number: +33 (0)4 78 93 08 26

Website: [www.sperm-tracker.com](http://www.sperm-tracker.com)

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