

BLUESTAR® OBTI

Immunochromatographic Test for Confirming the Presence of Human Blood Traces

Package Contents

REF	HU-829	24 Test devices
		24 Collection tubes
	HU-830	6 Test devices
		6 Collection tubes

For Forensic Use

Test Principle

A sample of the presumed human blood trace is transferred into a collection tube with transport medium. This mixture is added drop by drop to **TEST**. Human hemoglobin (hHb) in the sample reacts with reagent consisting of red coloured particles and monoclonal anti-human Hb antibodies. The immunocomplex migrates to the test zone where it is captured by an immobilized second antibody directed against hHb forming a red test line (T) to indicate a positive result. Unreacted reagents migrate further and are bound in a second line by immobilized IgG antibodies. This control line (C) indicates proper function and correct handling of the test.

Reagents

- 6 or 24 test devices comprising a conjugate consisting of red particles and antibodies (anti-hHb), immobilized anti-hHb and IgG antibodies, individually sealed with desiccant
- 6 or 24 collection tubes with TRIS buffer, pH 7.8

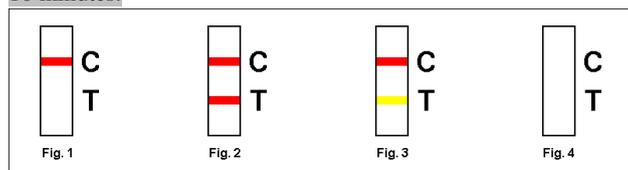
Collection of Specimen

Be careful **not breaking off** the red tip of the collection tube. Unscrew the red cap of the collection tube holding the tube upwards, thus assuring not to spill the transport medium. Collect samples of presumed blood from various spots with an appropriate collecting tool. Immerse and shake gently the sample inside transport medium contained in the collection tube. Screw the cap tightly. Thus, the collected sample is stable at room temperature and must be tested within one week after collection.

Old samples, or samples extracted from absorbing material, should be left in the transport medium from 5 to 20 minutes up to 8-12 hours, to avoid false negative results.

Test Procedure and Interpretation

Remove **TEST** from the pouch and place it on a level surface. Holding the collection tube vertically break off the tip. Dispense exactly 3 full drops (120 µl) into the round sample well (S) at the lower end of **TEST**. Wait for about 5 minutes to read the result. Negative results must be confirmed after, but no longer than 10 minutes.



Storage and Stability

The test kit is stable up to the given expiration date when stored between 2 and 30 °C. It should not be used beyond the expiration date. Freezing and temperature >30°C must be avoided.

Performance Characteristics

The test is capable of detecting minute quantities of hemoglobin. The detection limit in terms of Hb concentration in the transport medium is 50 ng Hb/ml.

A positive sample is typically detected within 3-5 minutes, while negative results must be confirmed after, but no longer than 10 minutes.

The test gives positive reactions with human hemoglobin subtypes HbA₁, HbA₂, HbF (positive with cord blood), HbS, primate (gorilla, langur) and weasel. Badger blood reacts weakly at concentration of 200 µg/ml and horse blood at concentrations above 500 µg/ml.

No cross-reactivity has been observed with blood from			
cattle	sheep	pig	cat
goat	turkey	goose	duck
chicken	guinea pig	red deer	dog
mouse	rabbit		

The test reacts positive up to a hemoglobin concentration of 10,000 µg/ml in the transport medium.

Typical design verification data can be found on the website:

http://www.bluestar-forensic.com/pdf/en/Bluestar_OBTI_verification_report.pdf

Negative (Fig. 1)

Only one red Control line (C) appears in the upper part of the rectangular result window indicating that the test has been carried out correctly and the reagents were functioning.

Positive (Fig. 2 and 3)

A second red Test line (T) appearing in the lower part of the rectangular result window, indicates a positive result for human hemoglobin (or primate, badger or weasel Hb) in the sample.

Even a weak test line indicates a positive result (Fig. 3). Different intensities between Test (T) and Control (C) lines may occur but do not affect the interpretation of the results.

Invalid (Fig. 4)

No Control line or only the Test line appears. Repeat the test with a new **TEST** following carefully this instruction.

BLUESTAR® OBTI for forensic use is made in China and distributed by

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