

BLUESTAR® OBTI

Immuno-chromatographic Test for Confirming the Presence of Human Blood Traces for Forensic Use

Last update on May 14, 2020

Package Contents

[REF]	HU-829	24 tests devices [TEST] 24 collection tubes
	HU-830	6 tests devices [TEST] 6 collection tubes

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.

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.

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

The test provides results within 3-10 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 the following animals:

sheep, pig, cattle, goat, cat, dog, chicken, turkey, goose, duck, rabbit, mouse, guinea pig, red deer.

Typical design verification data can be found on the website:

https://www.bluestar-forensic.com/medias/documentationfile/bluestar_obti_verification_report.pdf

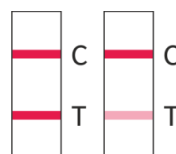
Collection of Specimen

1. Be careful **not to break 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.
2. 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.
3. 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

1. Remove [TEST] from the pouch and place it on a level surface.
2. Holding the collection tube vertically with the red tip on the top. Break off the tip.
3. Dispense exactly 3 full drops (120 µl) into the round sample well (S) at the lower end of [TEST].
4. Read the result according to the time elapsed after dispensing the drops. Check for the Control (C) line and Test (T) line to appear, from 3 minutes up to 10 minutes. **NEVER READ RESULTS AFTER 10 MINUTES** as they may not be accurate.

3 – 10 MINUTES
Read a positive
result



Positive

The result is positive if **BOTH TEST (T) AND CONTROL (C) LINES** appear **WITHIN 10 MINUTES**, indicating the sample contains human hemoglobin (or primate, weasel, badger, horse).

Even a weak test line indicates a positive result. Different intensities between T and C lines may occur but do not affect the interpretation of the result.

AT EXACTLY 10 MINUTES
(not before, not after)
Confirm a negative result



Negative

The result is negative if the [TEST] shows **ONLY THE CONTROL (C) LINE AT EXACTLY 10 MINUTES**, proving that the test has been carried out correctly and the reagents were functioning.

Invalid

If the result at exactly 10 minutes shows **ONLY the T LINE OR NO LINE** at all, the test is invalid.

Repeat the test with a new [TEST] following these instructions.

The **BLUESTAR® OBTI** forensic test is made in China and distributed by:

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