



# MOP One Step Morphine Test Device (Urine)

*A rapid, one step test for the qualitative detection of Morphine, Opiates, and Heroin in human urine.  
For in vitro diagnostic use only.*

## INTENDED USE

Atlas MOP One Step Morphine Test Device (Urine) is a lateral flow chromatographic immunoassay for the detection of Morphine in human urine at the cut-off concentration of 300 ng/ml. This test will detect other compounds, please refer to Analytical Specificity table in this package insert.

**This assay provides only a qualitative, preliminary analytical test result. A more specific alternate chemical method must be used in order to obtain a confirmed analytical result. Gas chromatography/mass spectrometry (GC/MS) is the preferred confirmatory method. Clinical consideration and professional judgment should be applied to any drug of abuse test result, particularly when preliminary positive results are used.**

## SUMMARY

Opioid analgesics comprise a large group of substances, which control pain by depressing the central nervous system. Large doses of Morphine can produce higher tolerance levels and physiological dependency in users, and may lead to substance abuse. Morphine is excreted unmetabolized, and is also the major metabolic product of codeine and heroin. Morphine is detectable in the urine for several days after an opiate dose.

Atlas MOP One Step Morphine Test Device (Urine) is a rapid urine screening test that can be performed without the use of an instrument. The test utilizes a monoclonal antibody to selectively detect elevated levels of Morphine in urine. Atlas MOP One Step Morphine Test Device (Urine) yields a positive result when the Morphine in urine reaches 300ng/mL. This is the suggested screening cut-off for positive specimens set by the Substance Abuse and Mental Health Services Administration (SAMHSA,

USA).

## PRINCIPLE

Atlas MOP One Step Morphine Test Device (Urine) is an immunoassay based on the principle of competitive binding. Drugs, which may be present in the urine specimen, compete against the drug conjugate for binding sites on the antibody.

During testing, a urine specimen migrates upward by capillary action. Morphine, if present in the urine specimen below 300 ng/mL, will not saturate the binding sites of the antibody coated particles in the test Device. The antibody coated particles will then be captured by immobilized Morphine conjugate and a visible colored line will show up in the test line region. The colored line will not form in the test line region if the Morphine level is at or above 300 ng/mL because it will saturate all the binding sites of anti-Morphine antibodies.

A drug-positive urine specimen will not generate a colored line in the test line region because of drug competition, while a drug-negative urine specimen or a specimen containing a drug concentration less than the cut-off will generate a line in the test line region. To serve as a procedural control, a colored line will always appear at the control line region indicating that the proper volume of specimen has been added and membrane wicking has occurred.

## REAGENTS

The test Device contains mouse monoclonal anti-Morphine antibody-coupled particles and Morphine-protein conjugate. A goat antibody is employed in the control line system.

## PRECAUTIONS

- For *in vitro* diagnostic use only. Do not use after the expiration date.
- The test Device should remain in the sealed pouch until use.
- All specimens should be considered potentially hazardous and handled in the same manner as an infectious agent.
- The used test Device should be discarded according to federal state and local regulations.

## STORAGE AND STABILITY

The kit can be stored at room temperature or refrigerated (2-30°C). The test Device is stable through the expiration date printed on the sealed pouch. The test Device must remain in the sealed pouch until use. **DO NOT FREEZE.**

Do not use beyond the expiration date.

## SPECIMEN COLLECTION AND PREPARATION

### Urine Assay

The urine specimen must be collected in a clean and dry container. Urine collected at any time of the day may be used. Urine specimens exhibiting visible precipitates should be centrifuged, filtered, or allowed to settle to obtain a clear specimen for testing.

### Specimen Storage

Urine specimens may be stored at 2-8°C for up to 48 hours prior to testing. For long-term storage, specimens may be frozen and stored below -20°C. Frozen specimens should be thawed and mixed before testing.

## MATERIALS

### Materials Provided

- Test Device
- Disposable specimen droppers
- Package insert

### Materials Required But Not Provided

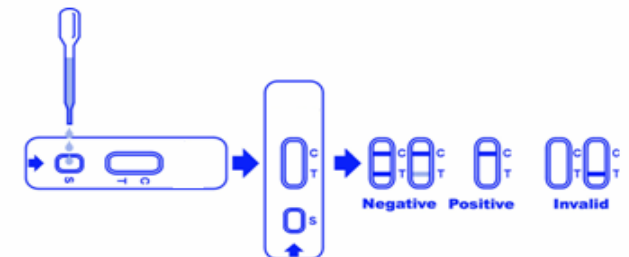
- Specimen collection container
- Timer

## DIRECTIONS FOR USE

Allow the test Device, urine specimen, and/or controls to reach room temperature (**15-30°C**) prior to testing.

1. Bring the pouch to room temperature before opening it. Remove the test Device from the sealed pouch and use it as soon as possible.
2. Place the test Device on a clean and level surface. Hold the dropper vertically and transfer 3 full drops of urine (approx. 100 µL ) to the specimen well (S) of the test device, and then specimen well (S) . See illustration below.
3. wait for the red line(s) to appear. The result should be **read at 5 minutes**. Do not interpret the result after 10 minutes.

### Test Results



## INTERPRETATION OF RESULTS

(Please refer to the illustration above)

**NEGATIVE:**\* Two lines appear. One red line should be in the control region (C), and another apparent red or pink line should be in the test region (T). This negative result indicates that the Morphine concentration is below the detectable level (300ng/mL).

\*NOTE: The shade of red in the test line region (T) may vary, but it should be considered negative whenever there is even a faint pink line.

**POSITIVE: One red line appears in the control region (C).** No line appears in the test region (T). This positive result indicates that the Morphine concentration exceeds the detectable level (300ng/mL).

**INVALID: Control line fails to appear.** Insufficient specimen volume or incorrect procedural techniques are the most likely reasons for control line failure. Review the procedure and repeat the test using a new test Device. If the problem persists, discontinue using the lot immediately and contact your local distributor.

## QUALITY CONTROL

A procedural control is included in the test. A red line appearing in the control region (C) is considered an internal procedural control. It confirms sufficient specimen volume, adequate membrane wicking and correct procedural technique.

Control standards are not supplied with this kit; however, it is recommended that positive and negative controls be tested as good laboratory testing practice to confirm the test procedure and to verify proper test performance.

## LIMITATIONS

1. Atlas MOP One Step Morphine Test Device (Urine) provides only a qualitative, preliminary analytical result. A secondary analytical method must be used to obtain a confirmed result. Gas chromatography/mass spectrometry (GC/MS) is the preferred confirmatory method to obtain a confirmed result. Gas chromatography / mass spectrometry (GC/MS) is the preferred confirmatory method
2. It is possible that technical or procedural errors, as well as other interfering substances in the urine specimen may cause erroneous results.
3. Adulterants, such as bleach and/or alum, in urine specimens may produce erroneous

results regardless of the analytical method used. If adulteration is suspected, the test should be repeated with another urine specimen.

4. A positive result indicates presence of the drug or its metabolites but does not indicate level of intoxication, administration route or concentration in urine.
5. A negative result may not necessarily indicate drug-free urine. Negative results can be obtained when, drug is present but below the cut-off level of the test.
6. Test does not distinguish between drugs of abuse and certain medications.

ATLAS Medical  
William James House,  
Cowley Road, Cambridge, CB4 4WX, UK  
Tel: ++44 (0) 1223 858 910  
Fax: ++44 (0) 1223 858 524

