

Rapid Urine Cassette Test – Benzodiazepines

BZD-DS04300

Name and Intended Use

The Rapid Urine Dipstick Test-Benzodiazepines qualitatively detects benzodiazepines, e.g., oxazepam and flunitrazepam, in human urine and common drink (water and pops). The results obtained are of a preliminary nature; positive results should be confirmed by way of a non-immunological method, such as gas chromatography mass spectrometry (GC/MS).

Summary of Test

Benzodiazepines are primarily used as depressants of the central system. Different benzodiazepine analogues can cause from muscle relaxing to intoxication and amnesia. Benzodiazepines are present in urine in the form of derivatives, as well as intact drugs. This is what denotes a benzodiazepines user.

Principle of Procedure

The Rapid Urine Dipstick Test-Benzodiazepines is an immunochromatography device based on the principle of competitive immunoassay. The nitrocellulose membrane on the test strip is immobilized with Benzodiazepine-carrier protein conjugate on the test zone (see Figure 1). Antibodies against Benzodiazepines, which have been conjugated with colloidal gold, are impregnated on a sample filter pad overlapping the bottom of the membrane. When the sample pad of the test strip is dipped into the urine sample to perform the test, the urine will diffuse upwards through the pad. The antibody-gold conjugate will flow with the liquid front-end, in the absence of Benzodiazepine, will bind to the immobilized drug conjugate causing a visible red band to appear on the test zone. However, when a sufficient concentration of Benzodiazepines is present in the urine sample, antibody-gold conjugate will bind with the free drug; thus, due to competitive binding, no visible band will appear on the test zone.

Sample Collection

Urine samples should be collected in either plastic or glass containers. Refrigerate samples after collection, until ready to test. Samples should be tested within 3 days of collection. Freeze the samples that must be stored long-term. Highly turbid urine should be centrifuged and save the sclear fluid for testing.

Warnings and Precautions

1. The test device is for in vitro diagnostics use only.
2. All specimens are considered health hazardous. Use proper protection when handling.

Storage and Stability

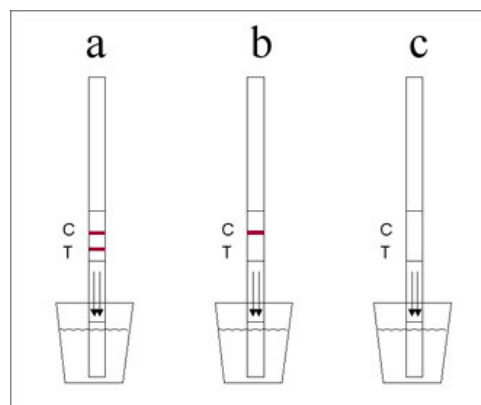
Store the test below 28°C, do not freeze.

Assay Procedure

1. Prior to use bring test sample and device components to room temperature.
2. Submerge the arrow pointed end into the test sample for 10 seconds or longer.
3. Wait for 5 minutes.
4. Read results at the end of the 5 minutes; do not interpret results after 10 minutes. (see Figure1).

Interpretation of Results

- a. **NEGATIVE:** If there are no benzodiazepines present in urine, there will be a rose-color bands appearing on both the control and the test section.
- b. **POSITIVE:** A positive result is observed when there is a control line (C) and no test line (T) and indicates a **minimum** benzodiazepinesconcentration of 300 ng/ml. At concentrations less than 300 ng/ml, there may be weak signal appearing at the test line area.



- c. **INVALID:** If there is no rose-color band visible in the control window, then the test result is invalid. It is recommended that the urine be retested.

** A positive result indicated here should be confirmed by a non-immunological method, such as GC/MS.

