

# Veti-Screen™ NICOTINE

Veterinary Diagnostic Test

COT

## ONE STEP Nicotine Metabolite test Dipcard (ROUGH DRAFT) FOR INVESTIGATIONAL USE ONLY

### SUMMARY & INTENDED USE

A rapid, one step screening test for the simultaneous, qualitative detection of Nicotine metabolite in animal urine .

### INTENDED USE:

The KACEY Drug Testing Device is a lateral flow chromatographic immunoassay for the qualitative detection of nicotine metabolite in animal urine samples at the following cut-off levels. Cutoffs designed for animal values NOT HUMAN. **Veterinary Use Only!**

### Nicotine metabolite 50ng/ml sensitivity

This assay provides only a preliminary qualitative test result. Use a more specific alternate quantitative analytical method to obtain a confirmed analytical result. Gas chromatography/mass spectrometry (GC/MS) is the preferred confirmatory method. Apply clinical and professional judgment to any drug test result, particularly when preliminary positive results are obtained.

### TYPES OF SPECIMEN COLLECTION AND PREPARATION

#### MIDSTREAM:

This collection method is often for the animal but can be quite difficult for the collector. Collection is accomplished by a direct method from the animal.

#### MANUAL EXPRESSION:

This collection method is often performed on small animals( dogs & cats). It is sometimes difficult and can result in some sort of trauma in the form of red blood cells ( RBC's ) in the urine. This method might result in the contamination from the lower urinary tract.

#### CATHERIZATION:

This method of collection can be used on male dogs for the assessment of urethral potency and upper urinary tract infection. This method often times results in iatrogenic presence of red blood cells (RBC) in the urine.

#### CYSTOCENTESIS:

This method requires penetration of the bladder through the body wall and can be accomplished by minimal bleeding. This is the preferred way to analyze upper tract infection. Urine specimens can be collected from animals by a variety of ways as described in the above sections. It is recommended that cleansing be performed at the collection site to insure uncontaminated samples. The preferred method of choice would be cystocentesis it provides specimens with the minimal amount of contamination.

### Kacey Nicotine Test Specimen Collection and Preparation

The urine specimen must be collected by cystocentesis method and not by a stream expressed by the animal. Urine collected at any time of the day may be used. Urine specimens exhibiting visible precipitates should be allowed to settle to obtain a clear specimen for testing.

#### Directions for use

- Remove the test device from the foil pouch.
- Label the device with animals name or control identifications.
- Using a clean bulb pipet supplied. Fill the pipet with the animals urine and place a drop of urine into the test well signified by yellow drop.
- Lay the device flat on a clean surface.
- Read results at 5 minutes. **DO NOT INTERPERET RESULT AFTER 10 MINUTES.**

### Interpretation of Results

**Negative:** Two lines appear. One color line should be in the Control region (C), and another apparent color line adjacent should be in the test region (T). This negative result indicates that the drug concentration is below the detectable level. Note: The shade of color in the test line region (T) will vary, but it should be considered negative whenever there is even a faint distinguishable color line.

**Positive:** Once color line appears in the control region (C) . No line appears in the test region (T) The positive result indicates that the drug concentration is above the detectible level.

**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 supplier.

Cotinine( nicotine metabolite) is the first metabolite of nicotine ,a toxic alkaloid that produces stimulation of the autonomic ganglia and the central nervous system when in animals. Nicotine is a drug to which virtually animals are exposed whether through second hand inhalation or direct consumption of pillows of tobacco laced with fragrance. In addition nicotine is also available commercially as an active ingredient in smoking replacement therapies such as nicotine gum, thermal patches, nasal sprays and pillows of tobacco containing other fragrant ingredients. Nicotine and cotinine are rapidly eliminated by the kidney. The window of detection for cotinine in urine at a cutoff of 200ng/ml is expected to be 2-3 days after ingestion of nicotine.

## PRINCIPLE AND EXPLANATION OF THE TEST

This test is a rapid chromatographic immunoassay based on the principle of competitive binding. During testing of an animal urine sample the urine specimen migrates up by capillary action. Continue, if present in the animal's urine below 200ng/ml will not saturate the binding sites of the antibody coated particles in the dip card. The antibody coated particles will then be captured by immobilized Cotinine conjugate and a visible colored line will show up in the test region.

The color line will not form in the test line region if the cotinine level exceeds 200 ng/ml because it will saturate all the binding sites of the cotinine antibodies.

A nicotine positive will not form in the test line region while a nicotine negative specimen a specimen containing a nicotine concentration less than the cutoff will generate a line in the test region. To serve as a procedural control a colored line will always appear at the control line region indicating a proper volume of specimen has been added and membrane wicking has occurred.

## Reagents

The dip test card contains mouse monoclonal anti-cotinine antibody coupled particles and cotinine conjugate. A goat antibody is employed in the control line system.

## STORAGE AND STABILITY

The test cards can be stored at Room temperature (2-30 C). The test card is stable through the expiration date printed on the pouch.

**DO NOT FREEZE**

**Cotinine (nicotine metabolite)** is the first metabolite of nicotine, a toxic alkaloid that produces stimulation of the autonomic ganglia and the central nervous system when in animals. Nicotine is a drug to which virtually every member of the animal world is exposed through second hand inhalation or direct consumption of pills of tobacco laced with fragrance. In addition nicotine is also available commercially as an active ingredient in smoking replacement therapies such as nicotine gum, thermal patches, nasal sprays and pills of tobacco containing other fragrant ingredients. Nicotine and cotinine are rapidly eliminated by the kidney. The window of detection for cotinine in urine at a cutoff of 200ng/ml is expected to be 2-3 days after ingestion of nicotine.

## PRINCIPLE AND EXPLANATION OF THE TEST

This test is a rapid chromatographic immunoassay based on the principle of competitive binding. During testing of an animal urine sample the urine specimen migrates up by capillary action. Continue, if present in the animal's urine below 200ng/ml will not saturate the binding sites of the antibody coated particles in the dip card. The antibody coated particles will then be captured by immobilized Cotinine conjugate and a visible colored line will show up in the test region.

The color line will not form in the test line region if the cotinine level exceeds 22 ng/ml because it will saturate all the binding sites of the cotinine antibodies.

A nicotine positive will not form in the test line region while a nicotine negative specimen a specimen containing a nicotine concentration less than the cutoff will generate a line in the test region. To serve as a procedural control a colored line will always appear at the control line region indicating a proper volume of specimen has been added and membrane wicking has occurred.

competitive immunoassay utilizing highly specific reactions between antibodies and antigens for the detection of multiple drugs and drug metabolites in animal urine. This test is a rapid urine test that utilizes monoclonal antibodies to selectively detect elevated levels of specific drugs in animal urine without the use of an instrument.

## Reagents

The dip test card contains mouse monoclonal anti-cotinine antibody coupled particles and cotinine conjugate. A goat antibody is employed in the control line system.

## STORAGE AND STABILITY

The test cards can be stored at Room temperature (2-30 C). The test card is stable through the expiration date printed on the pouch.

**DO NOT FREEZE**

## Specimen storage

The urine specimen may be stored at 2-8 C up to 48 hours prior to testing.

## Direction and Use

Allow the test device and the specimen to come to room temperature prior to testing.

1. remove the test device from the pouch
2. Remove the cap from the test device. Label the device with the animal name
3. Immerse the absorbent tip into the animal's urine sample for 10-15 seconds. The urine sample should not touch the plastic device.
4. Replace the cap over the absorbent tip and lay the device flatly on a non-absorbent surface.
5. Read the results in 5 minutes
6. Do not interpret the test results after 10 minutes.

## INTERPRETATION OF TEST RESULTS

**NEGATIVE**—TWO LINES (Note) the shade of red in the test line region (T) may vary but should be considered Negative when ever there is even a faint pink line.

**POSITIVE**—One red line in the control region. No line appears in the test (T) region

**INVALID**—Control line (C) fails to appear



Kit contains pipette  
with each test

