

Distemper-adenovirus Diagnostic Kit

Uranotest

For veterinary use only

Technical basis

The URANOTEST Distemper-Adenovirus diagnostic kit is based on the immunochromatographic technique and is designed for the qualitative detection of *Canine Adenovirus* (CAV) and *Distemper virus* (CDV) (usually involved in the "kennel cough" disease) in canine conjunctives.

The test has a double structure; it contains two single tests: a strip for CDV antigen detection and a strip for CAV antigen detection. Each test consists of several overlapped membranes. On one of the membranes, there are a test line (T line) and control line (C line). The lines are not visible before applying the sample. After applying the sample in the appropriate sample well, migration begins by capillarity action through the membrane. If the result is negative, one purple colour band appears in the C area. This line, called control line, always appears, as it is a control line indicating that the test has successfully performed. If the test result is positive, in addition to the control line, a second line will form in the test area (Test line).

Materials supplied

- 1 - Double test devices individually packaged in aluminium pouch.
- 2 - Tubes with buffer solution for sample dilution.
- 3 - Swabs for sample collection.
- 4 - Disposable pipettes.
- 5 - Instructions for use.

Precautions

- 1 - For veterinary use only.
- 2 - Wear disposable gloves when handling the samples. All samples should be treated as potentially infectious. Wash and disinfect hands after handling. Avoid aerosol formation when dispensing the sample.
- 3 - To obtain good results, it is important to add the correct sample volume.
- 4 - Open the device just before use.
- 5 - All reagents must be at room temperature before performing the test.
- 6 - Do not use the test if the envelope is damaged or broken.
- 7 - Do not re-use.
- 8 - Do not use reagents after the expiry date.
- 9 - The quality of each component of the kit has been individually assessed for each batch. Do not mix components or reagents from kits with different batch numbers.

Preservation and stability

The kit must be stored at a temperature between 2 and 30°C. Under these conditions, we can guarantee the stability until the expiry date printed on the box and on the individual pouch.

The kit has been developed to be stored at room temperature. Although it also can be stored in the refrigerator, we recommend store it at room temperature to avoid the need to wait for reagents to reach the room temperature.

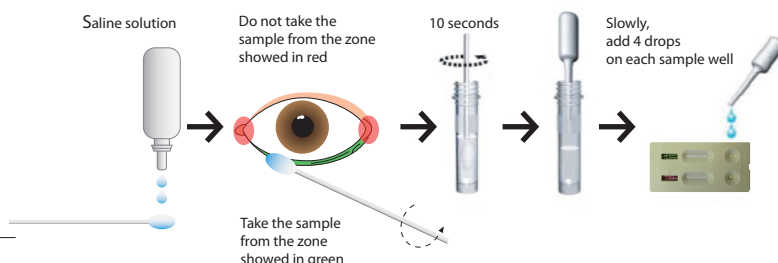
DO NOT FREEZE. Do not exposure to direct sunlight.

Sample collection and preparation

- 1 - Take a swab and moisten it in physiological saline solution.
- 2 - With the moistened swab, take the sample from the dog's conjunctive.
- 3 - The recommended zone to collect the sample is the conjunctive zone, showed in green in the attached diagram.
- 4 - To collect the sample, rub the indicated zone with the moistened swab from left to right so as to collect the conjunctival epithelial cells, which is where the largest concentration of virus may be found.
- 5 - The samples must be tested immediately after being collected.
- 6 - To avoid anomalous results, do not collect the sample from the zone marked in red in the diagram.
- 7 - Insert the swab in the tube containing the diluent buffer and press it against the tube walls in order to release the virus.
- 8 - Shake the vial to ensure homogenisation of the sample.

Instructions for use

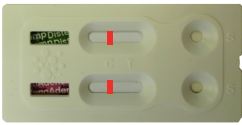
- 1 - Remove the test device from the protective pouch and place it on a flat and dry surface.
- 2 - Using the pipette provided, transfer 4 drops of the recently-prepared sample to the round CDV sample well.
- 3 - Repeat exactly the same procedure for the CAV test.
- 4 - When the test begins running, you will observe migration of the sample through the result window. If migration has not begun 1 minute after sample addition, add one more drop of the diluted sample.
- 5 - Read the results within 5-10 minutes. Coloured lines appeared after 20 minutes have not diagnostic value and should be ignored.



Interpreting results

1 - Negative result

There is one single line (control band) in the C-zone in the results window, both in the Distemper determination zone and in the Adenovirus determination zone.



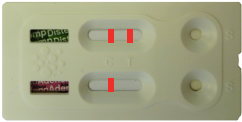
2 - Positive result for Distemper and Adenovirus simultaneously

There are of two purple-coloured bands (T and C) in the results window, both in the Distemper determination zone and in the Adenovirus determination zone. Whichever band appears first, the result is considered positive.



3 - Positive result for Distemper

There are of two purple-coloured bands (T and C) in the results window of the Distemper determination zone and one single band (control C band) in the Adenovirus determination zone.



4 - Positive result for Adenovirus

There is one single band (control C band) in the Distemper determination zone and two purple-coloured bands (T and C) in the results window of the Adenovirus determination zone.



5 - Invalid result

The test is invalid if not coloured line appears at the Control area (C) even if a coloured line appears in the Test area (T). The reason may be due to incorrect handling or using a damaged test.



Limitations of the technique

Even though the URANOTEST Distemper-Adenovirus diagnostic kit shows high sensitivity and specificity, cannot be excluded a low incidence of false positive or negative results.

As any other laboratory procedure, the definitive clinical diagnosis cannot be based only on the test result. It must be based on an ensemble of clinical and laboratory procedures. If there is any doubt, repeat the test and/or contrast with other diagnostic methods.

Using samples other than from the conjunctival secretion to detect Distemper

It is possible to use other samples than from conjunctival secretion to detect the Distemper virus, such as blood, serum, nasal discharge, epithelial cells from the nasal cavity, saliva, epithelial cells from the oral cavity and urine. However, you must remember that in these cases, false negative results may be obtained that are not due to the kit's technique, but rather the pathogenesis of the disease itself.

In fluids other than conjunctival secretion, both the Distemper virus concentration and its excretion period is much less, as you can observe on the attached table, where the concentration and the excretion period of the virus is compared with different fluids and secretions.

Type of samples	Virus concentration in the sample	Period of time wherein the virus may be found in the sample during illness pathogenesis	How easy is to obtain the sample
Conjunctival epithelial cells (RECOMMENDED)	++++	++++	++++
Ocular secretion	++	+++	++++
Epithelial cells from the bladder	++++	++++	+
Urine	+++	+++	++
Oral cavity cells	++	++++	++++
Saliva	++	++	++++
Epithelial cells from nostrils	+++	++++	++
Nasal discharge	++	++	++++
Blood	+++++	++	++++