DRG® ADV Adeno Clinic, One Step (RAP-2742)

Revised 17 Aug. 2007 **RUO in the USA**

INTENDED USE
For the detection of Adeno Virus in Faeces Samples and Tissue Cultures. In the United States, this kit is intended for Research Use Only.

INTRODUCTION
Adeno virus was discovered in 1953. Adeno virus causes pharyngitis/bronchitis/pneumonia. 15% of respiration diseases in children under 5 years of age are caused by Adeno virus. 11% of the acute gastro-enteritis cases is caused by Adeno viruses. Ocular diseases (Keratoconjunctivitis) swimming pool conjunctivitis can occur at all different ages, especially in immune suppressed people (SLE, HIV, etc.). Epidemics of enteric Adeno have been found several times combined with Rota virus infections. Adeno virus, especially enteric types, can be very difficult to cultivate. It can take sometimes 28 days before the virus can be detected in the culture. We distinguish 4 Adeno virus groups: Group I and II, both non-enteric Adeno group. Group III (type 41) and Group IV (type 40) are both enteric subtypes. This one step test detects group specific Adeno virus antigen in samples of all kind of species (human, mice, rind, pig, etc.).

PRINCIPLE OF THE TEST
The Adeno clinic test kit is based on a chromatographic test strip and two monoclonal antibodies to Adeno virus antigens. One of the monoclonal antibodies is conjugated to gold particles and the other is immobilized on the strip in the test zone. Adeno virus present in a test sample applied to the test strip will bind to the gold particles, which then migrate to the test zone. Also immobilized on the strip in the control zone is an Adeno virus antigen, which binds the gold-bound monoclonal antibodies to indicate that the test is working properly.

TEST COMPONENTS
5 x test strips (to be opened only immediately before use)
5 x cotton swabs
5 x vials containing 600 µl buffer.

TEST PROCEDURE
NOTE: Use a new swab for each sample.
1) Take a small sample of faeces or a rectal swab using the included swab.
2) Wash the swab in the buffer vial (see Figure 3).
3) Let clots of faeces sink to the bottom, or if possible, centrifuge the sample.
4) Add 4 drops of the sample solution with the pipet to the strip (see Figure 4).
5) Read the result after 5 to 10 minutes.

Figure 3

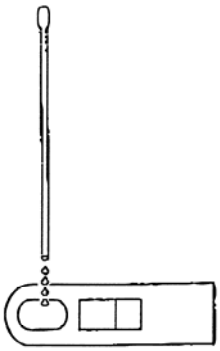

Figure 4

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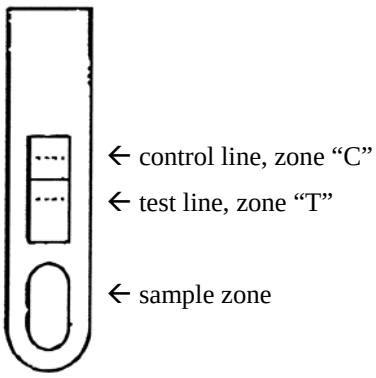
INTERPRETATION OF RESULTS

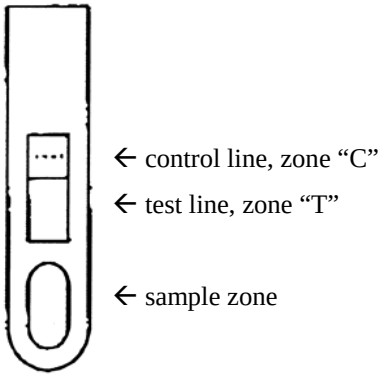
Positive: two red bands are visible, one in zone "C" and one in zone "T" => the sample contains rota antigen. ***The animal is infected with Rota Virus!***

Negative: only one red band is visible in zone "C" => ***The animal is not infected.***

Not valid: no bands are visible; repeat the test with another strip.



positive



negative

NB

- A negative result, can still imply a very weak infection. In this case, there are not enough virus particles per ml. faeces to get a positive signal $\leq 10^4$, but this is rare. Infected ill human shed always $> 10^8$.
- Also, incorrect sampling and storage can cause false negative results.
- In case of respirator Adeno virus infection, it is better to test throat samples because these will contain much more virus particles than the faeces samples.
- Faeces samples containing staphylococcus aureus (Ecoli strains) with high protein A/G. Concentrations can result in false positive results. These infections are very rare in children.

STORAGE

The test has an expiry date of 12 months, stored at room temperature in a sealed package.

WARNING

Positive samples should be considered as infectious.

REFERENCES:

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Fay et al Arch Environ Health 17 795-802 1968

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