

# BIOCARD™ ADENOSTICK

BIOCARD™ ADENOSTICK is a sensitive and rapid stick test for the detection of adenovirus from faecal samples  
REF 3-013-410 / 420

## INTRODUCTION

Adenoviruses are a frequent cause of acute diarrhea, upper respiratory tract (URT) infections, eye infections, etc. They were isolated first in 1953 from adenoidal tissue of children. Adenoviruses are widespread in nature, infecting birds, many mammals and man. There are 2 genres, Aviadenovirus (avia) and Masadenovirus (mammalian).

All adenovirus particles are similar, non-enveloped, 60-90 nm in diameter, they are composed of 252 capsomers, 240 "hexons" + 12 "pentons" and have icosahedral symmetry. Adenovirus capsid has at least 10 proteins from which purified hexons has been used to produce group specific antibodies.

The adenoviruses are usually mild pathogens, but can cause several different diseases, like acute respiratory illnesses, gastroenteritis, keraconjunctivitis (so called pink eye), etc. Several types have oncogenic potential. Type 40 and 41 adenoviruses have been detected to be responsible for severe acute diarrhea in young children. It has been estimated to be the second most common causative virus in children diarrhea after rotavirus.

## TEST PRINCIPLE

Biocard™ Adenostick is a rapid one step qualitative immunoassay based on the immunochromatographic sandwich principle. The method employs a unique combination of highly specific anti adenovirus antibody-dye conjugate (gold) and anti adenovirus solid phase antibody to selectively identify adenovirus antigen with high degree of sensitivity.

## TEST COMPONENTS

Biocard Adenostick  
REF 3-013-410  
- 10 Disposable test sticks  
- 10 Test tubes  
- 10 Sterile sampling swabs  
- 10 ml Biocard™ Adeno Buffer  
- 0,5 ml Biocard™ Adeno Stick  
Positive Control

## REF 3-013-420

- 20 Disposable test sticks  
- 20 Test tubes  
- 20 Sterile sampling swabs  
- 10 ml Biocard™ Adeno Buffer  
- 0,5 ml Biocard™ Adeno Stick  
Positive Control

Materials needed but not provided

- specimen container
- timer

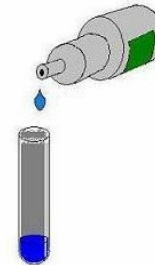
## TEST PROCEDURE

### 1. Collection of the specimen

Faecal specimens should be collected in the acute phase of infection, when large amounts of virus are excreted. The chance of identifying a pathogen diminishes as time after acute illness passes. Adenovirus antigens are very resistant to destruction in the specimen and do not lose their activity during a few days of storage. For longer storage, it is recommended to deep freeze the specimens as such or diluted 1:10 in PBS buffer.

### 2. Handling of samples prior testing

Place a test tube in a workstation. Add 6 - 8 drops of Biocard™ Adeno Buffer (approximately 225 µl) into the test tube.



Faecal specimens are collected using a cotton swab from the anus or from a diaper. The swab with a small amount of sample (approximately 25 µg) is put in the test tube. Please take care that not too much sample is caught on the inside of tube. The dilution should be approx. 1:10. The faecal sample is suspended in the buffer by rotating the swab.



Remove the swab from the tube. The test tube should stand at room temperature for 3 minutes to allow coarse particles to sediment. Samples can be stored for seven days refrigerated before the testing procedure.

### 3. Testing procedure

Take a stick from aluminium foil pouch and place it standing in the test tube with the filter end in the sample. The stick should not be submerged in the sample deeper than the length of the max line indicates.



Let the stick remain standing in the sample for 5 minutes.

#### 4. Interpretation of the results

A positive result is indicated by the appearance of two red lines in the white central area of the stick. This can happen with clear positive samples already in 2 minutes and with weak positive samples in 5 minutes.



A negative result is indicated by the appearance of one red line, the control line, only. This is also an indication of proper performance of the test.



If the control line is not visible the test is inconclusive, whether or not the test line is visible. A new test must be performed.

#### STORAGE

Test packages can be stored at ambient temperature (+2 ... +27 °C), until expiry date. Biocard™

Adenostick Positive Control should be kept in refrigerator (+2 ... +8 °C).

#### CONTROLS

The proper performance of Biocard™ Adenostick can be checked by means of Biocard™ Adenostick Positive Control or with a known faecal specimen. The Positive control shall not be diluted further as it is ready for testing. The Biocard™ Adeno Buffer used as a negative control shall produce a negative result. When known frozen specimens are used as controls, they shall always be diluted with Biocard™ Adeno Buffer.

#### SPECIFICITY

Biocard™ Adenostick gave a distinct negative test result when tested with faecal specimens containing Rota, Parvo and Astrovirus.

#### WARNINGS AND LIMITATIONS

Follow the instructions for use carefully; a failure to do so may result in false test results. Biocard™ Adenostick test may only be used for in-vitro qualitative detection of Adenovirus antigen from faecal specimen according to the instructions for use.

A diagnosis should not be made solely according to the Biocard™ Adenostick – test result. The result should be used in conjunction with

additional diagnostic information available for the physician.

Do not use the test if the foil pouch is damaged. Do not use expired tests or reagents. Only use the reagents that came with the kit. Use each test strip only once.

The test should be performed in accordance with generally accepted virological principles of handling and containment of potentially hazardous samples. All samples are potential pathogens. Used materials and samples should be disposed of with appropriate caution.

Sodium Azide has been added 0,09 % to the reagents as a preservative. Avoid contact with skin and mucous membranes.

Positive control contains materials derived from animals. Handle with appropriate care.

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