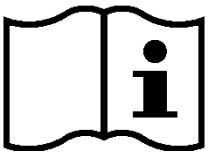
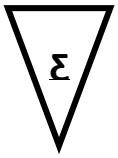


Useŕs Manual

Canine Parvovirus Antigen SRE

A monoclonal antibody-mediated capture SRE for the detection of Canine Parvovirus in faeces samples

REF D3201-AG01



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Nov 2021

Please use only the valid version of the package insert provided with the kit.

1. Table of Contents

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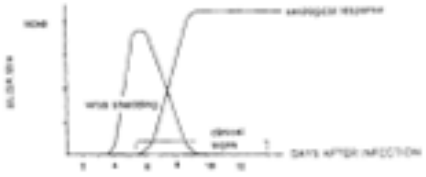
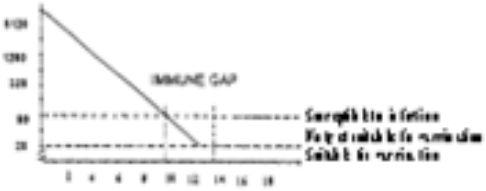
2. Introduction

Canine parvovirus was first described in 1978 as cause of enteritis in dogs. Dogs are infected through the oropharynx. After the onset of clinical signs the virus is excreted in the faeces for several days.





Kennels can harbor the virus permanently in the rooms, outside pens or exercise areas. In spite of vaccination these kennels will always be a risk for puppies aged between 6-14 weeks (Immune gap). Given these circumstances there is a need for a rapid, reproducible and simple diagnostic test.

This Parvo SRE test is ideal suited for this purpose.

In addition to canine parvovirus this test can also be used for the diagnosis of parvovirus infection in cats and mink (feline panleukopenia virus of cats and enteritis of mink).
Following early diagnosis of parvovirus, immediate implementation of hygiene measures and isolation of positive animals can keep further transmission to a minimum. Vaccination of contact healthy animals is advised.

3. Intended use of the test kit

This testkit detects parvovirus in faeces samples of infected animals. After several steps colour reaction develops in the positive wells which directly correlate with the amount of parvovirus present in the sample.

4. Principle of the test kit

The test is based on the reaction of CPV proteins with monoclonal antibodies. To this end monoclonal antibodies have been coated to a 32 microwell plate.
The diluted dog faeces sample is added to the wells of the coated plate. After washing, the bound dog antigens are detected by HRPO conjugated anti-CPV antibodies.
The colour reaction in the wells is directly related to the concentration of CPV antigen in the faeces sample.

5. Contents

- 4x 8 Microtiter strips coated with monoclonal anti-CPV antibody
- 2x ELISA buffer (white bottle + green cap)
- 1x HRPO conjugated anti-CPV antibodies (black bottle + red cap)
- 1x Positive control (ready to use) (yellow cap)
- 1x Negative control (ready to use) (brown cap)
- 1x Substrate A (white bottle + white cap)
- 1x Substrate B (black bottle + blue cap)
- 1x User's manual

Supplies needed (not included)

- Precision pipette 10-200µl (EVL)
- Pipette tips and clean containers/tubes (EVL)
- Aquabidest
- ELISA plate reader (the results can be interpreted by eye, but for a more accurate and objective reading the use of the ELISA plate reader is strongly recommended)

6. Handling and storage of specimens

- The kit should be stored at 4°C.
- An open strip packet should be used within 28 days.
- Samples may be used fresh or may be kept frozen below -20°C before use.
- Positive and negative controls may be stored after reconstitution in aliquots at -20°C and used until the expiry date.
- Avoid repeated freezing and thawing as this increases non-specific reactivity.

7. Preparations

- Before using the reagents needed, take them out of the kit and place them on the table for ±15 min. at room temperature (±21°C) without exposing them to direct sunlight or (other) heat sources.
- Buffer, controls, standards and conjugates need to be shaken gently before use, in order to dissolve/mix any components that may have precipitated. Gently tap the vials onto the table, so any fluid still retained in the cap falls back into the solutions.
- If fluids need to be mixed into the test well, gently shake by tapping the wells with the fingers or re-suspend with the last pipette tip used for that particular well. Avoid contamination through spattering and prevent any fluid to enter inside the pipette itself.
- Place the reagents back at 4-8°C immediately after use.

8. Test protocol **qualitative**

1. Before starting this test read **"preparations**".
2. Open the packet of strips and take out the amount of wells needed from the test strip, 1 for each sample and 2 extra wells for the controls. Cover the remaining strips with a part of the provided seal and store them at 4°C and use them within 10 days.
3. Use the precision pipette 10-200µl and use a clean pipette tip **before** pipetting the buffer, control, samples, conjugate and substrate.
4. Before testing make sure all reagents are at room temperature.

5. Take a small sample of faeces and add same amount of PBS (0,01M) or aqua bidest (not provided) to a clean tube (dilution 1:1), mix well.
   Example: 250µL faeces + 250µL PBS.
6. Let cloths of faeces sink or spin down 4 minutes at 4000g and, use only the supernatant.

7. Wash the test strips with running tap water.
   - Fill all wells to the rim.
   - Empty the wells.
   - Repeat 5 times.
   - Turn the wells upside down and empty the wells by slapping the strips onto a tissue paper. Take care that none of the wells dry out before the next reagent is dispensed.

8. Add 60µl of buffer to all the wells.
9. Add 60µl of the positive control to the first well.
10. Add 60µl of the negative control to the second well.
11. Add 60µl of each faeces sample to the remaining well.
12. Mix the reagents gently (see **"preparations**").
13. Incubate for 40 minutes at room temperature (±21°C).

14. Wash the test strips with running tap water.
    - Fill all wells to the rim.
    - Empty the wells.
    - Repeat 5 times.
    - Turn the wells upside down and empty the wells by slapping the strips onto a tissue paper. Take care that none of the wells dry out before the next reagent is dispensed.

15. Add 120µl of conjugate to each well.
16. Incubate for 40 minutes at room temperature (±21°C).
17. Turn the analyser on (when available).

18. Wash the test strips with running tap water.
    - Fill all wells to the rim.
    - Empty the wells.
    - Repeat 5 times.
    - Turn the wells upside down and empty the wells by slapping the strips onto a tissue paper. Take care that none of the wells dry out before the next reagent is dispensed.

19. Add 60µl of substrate A to each well.
20. Add 60µl of substrate B to each well.
21. Mix the reagents gently (see **"preparations**").
22. Incubate for 15 minutes in the dark (e.g. cover the wells with a piece of paper).

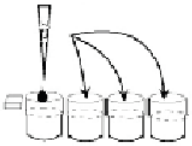
23. Read the absorbency values immediately (**within 10 min!**) at 620 nm on the analyser or by eye.
    Note: in case of using stop solution read the absorbency at 450 nm on the analyser.

9. Illustrated Test protocol

STEP: 7

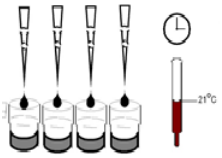
- Wash procedure
- Repeat 5 times

STEP: 6



- Add 60µl of buffer to all the wells.

STEP: 9 t/m 13

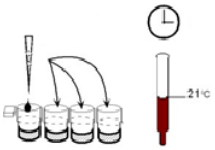


- Add 60µl of the positive control to the first well.
- Add 60µl of the negative control to the second well.
- Add 60µl of each faeces sample to the remaining well.
- Mix the reagents gently (see “preparations”).
- Incubate for 40 minutes at ±21°C.

STEP: 14

- Wash procedure
- Repeat 5 times

STEP: 15 & 16

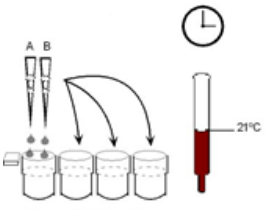


- Add 120µl of conjugate to each well.
- Incubate for 40 minutes at ±21°C.

STEP: 18

- Wash procedure
- Repeat 5 times

STEP: 19 t/m 23



- Add 60µl of substrate A to each well.
- Add 60µl of substrate B to each well.
- Mix the reagents gently (see “preparations”).
- Incubate for 15 minutes in the dark at ±21°C.

Read the absorbency values immediately (within 10 min!) at 620 nm on the analyser or by eye
Note: in case of using stop solution read the absorbency at 450 nm on the analyser.

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10. Precautions

- Handle all biological material as through capable of transmitting infectious diseases.
- Do not pipette by mouth.
- Do not eat, drink, smoke or prepare foods, or apply cosmetics within the designated working area.
- TMB substrate (buffer B) is toxic by inhalation, through contact with skin or when swallowed; observe care when handling substrate.
- Do not use components past the expiry date and do not mix components from different serial lots.
- Optimal, results will be obtained by strict adherence to this protocol. Careful pipetting and washing throughout this procedure are necessary to maintain precision and accuracy.
- Each well is ultimately used as an optimal cuvette. Therefore, do not touch the under-surface of the microtiter plate and protect it from damage and dirt.

11. Interpretation of the test results

The analyser will give the results as positive, weakly positive or negative, but always double-check the outcome by observing the intensity of colour development.

- **Positive**
  - A sample is scored positive if the sample colour is dark blue, at least as blue as the positive control.

- **Weak positive**
  - A sample is scored weakly positive if the sample colour is blue, with an intensity between that of the negative and positive control.

- **Negative**
  - A sample is scored negative if the sample colour is equally blue or less blue than the negative control.

Note

Diseased animal that are positive in this test (and are showing signs suggestive of parvo) are considered positive and shed parvovirus, separation of infected animals will reduce the spread of the virus.

12. Symbols used with EVL ASSAYS

Symbol	Description
	Consult instructions for use
	European Conformity
	In vitro diagnostic device
	For research use only
	Catalogue number
	Lot/ No. / Batch code
	Contains sufficient for <n> tests
	Storage Temperature
	Expiration Date
	Legal Manufacturer
Distributed by	Distributor
Content	Content
Volume/No.	Volume / No.

The entire risk as to the performance of these products is assumed by the purchaser. EVL shall not be liable for indirect, special or consequential damages of any kind resulting from use of the products. In case of problems or questions contact EVL.

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