

## One-step Feline Heartworm Antigen and Antibody Test

For veterinary diagnostic use only

# Anigen Rapid FHW Ag/Ab Test Kit

### ■ Principles

The **Anigen Rapid FHW Ag/Ab Test Kit** is a chromatographic immunoassay for the qualitative detection of antibody and antigen against feline heartworm in feline whole blood, serum or plasma.

The Anigen Rapid FHW Ag/Ab Test Kit has the two letters which are test line (T) and control line (C) on the surface of device. Test line and control line in the result window are not visible before applying any samples. The control line is a reference line which indicates the test is performing properly. The control line has to appear every time when the test has performed. If the antigen and/or antibody against feline heartworm is (are) present in specimen, a purple test line would appear in the result window.

### ■ Materials provided

Materials	2 Tests/Kit	5 Tests/Kit	10 Tests/Kit
Anigen Rapid FHW Ag/Ab Test Device	2	5	10
Assay diluent bottle	1 mlx1	2 mlx1	3 mlx1
Anti-coagulant tube	2	5	10
Disposable capillary tube (10 µl)	2	5	10
Disposable dropper	2	5	10
Instructions for use	1	1	1

\*Assay diluent and Disposable capillary tube (10 µl) for FHW Ab Test

\*Disposable dropper for FHW Ag Test

♠ **Black line** on the capillary tube is the indicator line for 10 µl.



### ■ Materials required, but not provided

- 1) Timer

### ■ Precautions

- 1) The Rapid Test Kit is for feline use only. Do not use for other animals.
- 2) Do not open or remove test kit from their individual sealed pouches before use.
- 3) Do not use the test kit if the pouch is damaged or the seal is broken.
- 4) Do not reuse test kit.
- 5) Do not use reagents beyond the stated expiration date marked on the label.
- 6) Do not mix components from kit with different lot numbers.

### ■ Storage and Stability

- 1) Store the test kit at 2~30°C. **DO NOT FREEZE.**
- 2) Do not store the test kit in direct sunlight.
- 3) The test kit is stable within the expiry date that marked on the package label.

### ■ Collection and Preparation of Sample

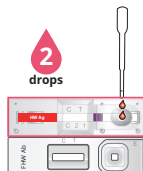
- 1) Feline whole blood, serum, or plasma should be used with this test.  
**[Whole blood]** Collect the whole blood into the anticoagulant tube (Max. vol. 1.5ml) provided. If anticoagulated whole blood is not immediately tested, they should be refrigerated at 2~8°C and used within 24 hours.  
**[Serum]** Collect the whole blood into the collection tube (NOT containing anticoagulants such as heparin, EDTA and sodium citrate), leave to settle for 30 minutes for blood coagulation and then centrifuge to get serum supernatant.  
**[Plasma]** Collect the whole blood into the collection tube (containing anticoagulants such as heparin, EDTA and sodium citrate) and then centrifuge to get plasma.
- 2) If serum or plasma samples are not tested immediately, they should be refrigerated at 2~8°C. For longer storage, freezing is recommended. Frozen samples should be brought to room temperature (18~25°C) prior to use.
- 3) Samples containing precipitate may yield inconsistent test results. Such samples must be clarified prior to assaying.
- 4) The use of hemolytic, lipaemic, icteric or bacterially contaminated samples should be avoided. Erroneous result may occur.

### ■ Procedure of the Test

Perform the antigen test and antibody test separately as below.

#### [FHW Ag]

- 1) Remove the test device from the foil pouch, and place it on a flat and dry surface.
- 2) Using a disposable dropper provided, add **2 drops of sample** into the sample hole.



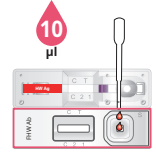
- 3) Start the timer. The sample will flow across the result window. If it does not appear after 1 minute, add one more drop of prepared sample to the sample hole.

- 4) Interpret test results at **15 minutes**. Do not interpret after 15 minutes.

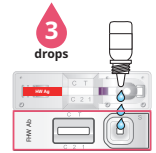


#### [FHW Ab]

- 1) Using a disposable capillary tube, dispense **10 µl of sample** into sample hole of the test device.



- 2) Add **3 drops of assay diluents** into the sample hole.



- 3) Start the timer. The sample will flow across the result. Some samples may not flow well within 1 minute, then the color line may not appear. In this case, add one more drop of assay diluents.

- 4) Interpret test results at **15 minutes**. Do not interpret after 15 minutes.

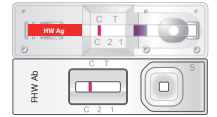


### ■ Interpretation of the Result

#### 1) Negative result

One control ("C") line appears in the result window.

- Exposure to heartworm unlikely
- Heartworm infection unlikely

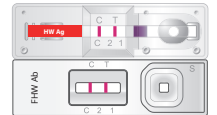


#### 2) Positive result

Test ("T") line and control ("C") line appear within the result window to indicate the presence of antigen or/and antibody against feline heartworm.

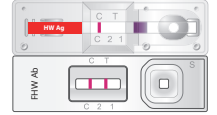
#### Antigen and Antibody Positive

- Mature infection
- Presence of adult heartworms



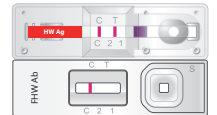
#### Antigen Negative, Antibody Positive

- Exposure to heartworm
- Immature infection
- Ectopic heartworm infection



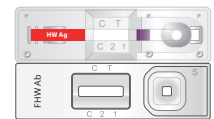
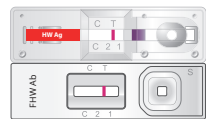
#### Antigen Positive, Antibody Negative

- Heartworm infection (result of antigen positive)
- Antibody test rarely shows negative result depending on individual immune system



#### 3) Invalid Result

If the control ("C") line does not appear after 15 minutes, the result might be considered invalid. The samples should be re-tested.



### ■ Limitations of the test

- 1) Generally, because of low adult worm burden in FHW infection, antigen positive result is highly suggestive of true infection. But additional diagnostic methods are recommended when the test result is negative. Other clinical and/or laboratory tests might be required if questionable results are obtained. As other diagnostic tests, a definitive clinical diagnosis should not be based on the result of a single test, but should be diagnosed by veterinarian after all clinical and laboratory findings have been evaluated.
- 2) Antibody positive result means that cats have been exposed to heartworm. But it does not necessarily mean they have mature heartworm infection. Antibody test can serve as a marker for exposure to and risk of heartworm infection (even if the cat never develops a mature infection) and for the possibility of pulmonary larval dirofilariasis. Antibody-positive state may be on the decline with time.

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