**One-step Canine Heartworm Antigen Test Kit**

**Principles**

The Anigen Rapid one-step Canine Heartworm Antigen Test Kit is a chromatographic immunoassay for the qualitative detection of Canine *Dirofilaria immitis* antigen in canine serum, plasma, or whole blood.

**Materials provided**

<table>
<thead>
<tr>
<th>Materials</th>
<th>10 Tests/Kit</th>
<th>100 Tests/Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anigen Rapid one-step Canine Heartworm Antigen test device</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>Disposable droppers for specimen</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>Vials of EDTA</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>Instructions for use</td>
<td>1</td>
<td>1</td>
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</table>

**Precautions**

1. For veterinary diagnostic use only.
2. For best results, strict adherence to these instructions is required.
3. All specimens should be handled as being potentially infectious.
4. Do not open or remove test devices from their individually sealed pouches until immediately before their use.
5. Do not use the test device if the pouch is damaged or the seal is broken.
6. Do not use reagents beyond the stated expiration date marked on the label.
7. Do not mix components from different lot numbers.
8. Do not use reagents beyond the stated expiration date marked on the label.
9. The components in this kit have been quality control tested as standard batch unit.
10. Do not mix components from different lot numbers.
11. The test kit should be disposed of according to local regulations for hazardous materials and in vitro diagnostics.

**Storage and Stability**

The kit can be stored at room temperature or refrigerated (2-30°C). The test kit is stable through the expiration date marked on the package label. **DO NOT FREEZE.** Do not store the test kit in direct sunlight.

**Materials**

**Specimen Collection and Preparation**

1. The test can be performed with serum, plasma, or whole blood (with anticoagulant such as EDTA). When using the included EDTA tubes, you should first collect the blood sample in a syringe and then put into the EDTA tube. Mix this around before using disposable dropper to draw the sample out and drop into the test device.
2. If specimens are not immediately tested, they should be refrigerated at 2-8°C. For storage more than 48 hours, freeze the sample at -10°C or below.

**Procedure of the Test**

1. Remove the test device from the foil pouch, and place it on a flat and dry surface.
2. Draw up the specimen using the disposable dropper.
3. Add two (2) drop (approximately 80μl) of canine serum, plasma or whole blood into the sample hole. If the migration has not appeared after 1 minute, add one more drop into the sample hole.
4. As the test begins to work, you will see a purple color move across the result window in the center of the test device.
5. Interpret test results at 5-10 minutes. Do not decide after 10 minutes.

**Interpretation of the Test**

A colored band “T” will appear in the left section of the result window to show that the test is working properly. This band is the control band. The right section of the result window indicates the test result.

1. **Negative result**
   - The presence of only one purple color band within the result window indicates a negative result.

2. **Positive result**
   - The presence of two color bands (“T” band and “C” band) within the result window, no matter which band appears first, indicates a positive result.

3. **Invalid result**
   - If the control purple colored band (“C”) is not visible within the result window after performing the test, the result is considered invalid. The directions may not have been followed correctly or the specimen may have deteriorated. It is recommended that the specimen be re-tested.

**Limitations of the Test**

When using the Anigen Rapid One-Step Canine Heartworm Antigen Test kit to detect Canine *Dirofilaria immitis* antigen, a low incidence of false results can occur. Other clinically available tests are required if questionable results are obtained. As with all diagnostic tests, a definitive clinical diagnosis should not be based on the results of a single test, but should only be made by the veterinarian after all clinical and laboratory findings have been evaluated.

In a study conducted in the US, the kit showed a specificity of 100% (54/54) and a sensitivity of 96.4% (53/55). In samples with “2 or more female worms” recovered at necropsy, the sensitivity was 100% (41/41). In a separate multicentric field trial study conducted in the US, the sensitivity (15/15) and specificity (5/5) were found to be 100%.

**Bibliography**

2. Charles H, Courtney, Ji-Yun Zeng: Comparison of heartworm antigen test kit performance in dogs having low heartworm burdens; Veterinary Parasitology, 96, 2001, 317-322
3. William M. O. Boto, Kendall G. Powers and David A. Levy: Antigens of *Dirofilaria immitis* which are immunogenic in the canine host: detection by immune-staining of protein blots with the antibodies of occult dogs; J. Immunol., 138(2), 1984, 975-980

**Key for symbols on box**

In vitro diagnostic Store between 2-30°C 

[Figure for test Procedure]

Wait for 5-10 mintes →
Add 2 drop of sample Interpret the results

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