Anigen Rapid AIV Ag/NDV Ag Test Kit

■ Principles

Anigen Rapid AIV Ag/NDV Ag Test Kit is a chromatographic immunoassay for the qualitative detection of avian influenza type A virus antigen and Newcastle disease virus in avian cloaca, trachea, kidney or feces.

Anigen Rapid AIV Ag/NDV Ag Test Kit has a letter of "T" as test line and "C" as control line on the surface of the device. The test line and control line in result window are not visible before applying any samples. The control line is used for procedural control. Control line should be always appeared if the test procedure is performed properly and the test reagents of control line are working. A purple test line respectively will be visible in the result window if there is enough avian influenza virus antigen and Newcastle disease virus in the sample.

A monoclonal anti- avian influenza virus common nucleod protein (type A) and a monoclonal anti- newcastle disease virus used in test line as capture and detector materials respectively. These enable the **Anigen Rapid AIV Ag/NDV Ag Test Kit** to identify avian influenza virus type A antigen and Newcastle disease virus in avian cloaca, trachea, kidney or feces with a high degree of accuracy

■ Materials provided (10Tests/Kit)

- 1) Anigen Rapid AIV Ag/NDV Ag Test Device x 10EA
- 2) Sample Collection tubes containing 1ml of assay diluent x 10EA
- 3) Sample collection swab x 20EA
- 4) Disposable droppers x 10EA
- 5) Instruction for use

■ Precautions

- 1) For veterinary diagnostic use only.
- 2) For best results, strict adherence to the instructions is required.
- 3) All specimens should be handled as being potentially infectious.
- 4) Do not open or remove the test kit from their individually sealed pouches until immediately before use.
- 5) Do not use the test kit if the pouch is damaged or the seal is broken.
- 6) Do not reuse test kit.
- 7) All reagents must be at room temperature before running the assay.
- 8) Do not use reagents beyond the stated expiration date marked on the label.
- The components in this kit have been quality control tested as a standard batch unit. Do not mix components from different lot numbers.
- 10) For best results, test more than 5 samples in the firm.

■ Storage and Stability

The kit can be stored at room temperature $(2\sim30^{\circ}\text{C})$ or refrigerated. 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.

■ Sample Collection and Preparation

- 1) Specimen from avian feces should be used for AIV Ag test
 - ① Feces: Take scattered a wet feces using the swab
 - 2 Cloacal swab: Take a swab sample from a Cloaca using the swab
- Specimen from avian oropharnx, spleen, or kidney should be used for NDV Ag test
 - Swab specimen of avian oropharnx, spleen, or kidney: Collect the specimen from avian oropharnx, spleen, or kidney using the swab for NDV Ag test.
 - ② 50% homogenates of avian spleen, or kidney: Make the 50% homogenates of spleen or kidney using PBS.
- 3) Specimen may be stored refrigerated (2~8°C) for up to 72hours, for longer storage freeze at or below -20°C in vials with air-tight seals.

■ Procedure of the test

- 1) Allow all kit components and specimen to room temperature prior to testing.
- 2) Remove the test device from foil pouch, and place it on a flat, dry surface.
- 3) Collect the samples from faces or cloaca using the swab for AIV Ag.
- Collect the samples from oropharnx, spleen, or kidney using the swab for NDV Ag
- 5) Insert the swab samples (3,4) into the specimen tube containing 1ml of assay diluent.
- 6) Mix the swab samples with assay diluent to extract the virus well.
- 7) Using the disposable dropper provided, take the samples from the extracted and mixed specimens in the tube.
- 8) Add four (4) drops into the each sample hole using the disposable dropper.: Exactly, slowly and drop by drop.

- 9) As the test begins to work, you will see a purple color move across the result window into the center of the test device. If the migration has not appeared after 1 minute, add one more drop of the mixed assay diluent to the sample well.
- 10) Interpret test results at $5 \sim 10$ minutes. Do not decide after 20 minutes.

■ Interpretation of the test

1) Negative result

The presence of only one band within the result window on both of the AIV Ag and NDV Ag test areas indicates a negative result.



2) Simultaneous AIV type A and NDV Ag Positive result

The presence of two color bands ("T" and "C") within the result window on both of the AIV Ag and NDV Ag test areas respectively, no matter which band appears first avian influenza type A subtype virus antigen and NDV Ag in avian feces simultaneously.



3) AIV type A Ag Positive result

The presence of two color bands ("T" and "C") within the result window on the AIV Ag test area, and the presence of only one band ("C") within the result window on the NDV Ag test area, no matter which band appears first, indicates a positive result of Avian influenza virus type A.



4) NDV Ag Positive result

The presence of two color bands ("T" and "C") within the result window on the Newcastle disease virus antigen test area, and the presence of only one band ("C") within the result window on the AIV Ag test area, no matter which band appears first, indicates a positive result of Newcastle disease virus.



5) Invalid Result

If the purple color band 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 test may have deteriorated. It is recommended that the sample be re-tested.





■ Limitations of the test

Although the Anigen Rapid AIV/NDV Ag Test kit is very accurate in detecting avian influenza virus and newcastle disease virus 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. The detection limit of this kit is approximately 0.125 HAU for AIV Ag and 0.25HAU for NDV Ag.

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