Avian Influenza Virus
Antigen Detection Tests

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FluDetect™ Test Strip Protocol

To tube provided:

A. Add 8 drops extraction buffer. Add 200 μl AAF (sample), mix gently

B. Place test strip directly into the sample so that the pink pad is just submerged into the extracted sample

C. Incubate strip for 15 minutes
1. Remove the device from the pouch just prior to testing—lay flat

2. Draw 100 μl sample into the pipet—make sure there are no air bubbles

3. Add the entire contents (drop by drop) to the white pad at the top of the strip

4. Peel off the adhesive liner, seal the device and incubate for 15 minutes
Avian Influenza
Antigen Detection Tests

• Advantages
  – Rapid (15-20 minutes)
  – Highly specific (nucleoprotein target)
  – No special facilities required

• Disadvantages
  – Expensive ($15-30/test)
  – Moderate sensitivity (70-80% compared to VI)
  – False positives (bacterial contamination)
  – Interference by blood (alkaline phosphatase)
Avian Influenza Virus Type A Antigen Test Kit

- Recommended for testing sick/dead birds (high virus load)
- FluDetect™—Conditional license for veterinary use
- Test strips contain antibody to influenza type A nucleoprotein
- FluDetect™: Tracheal, oropharyngeal, and cloacal swabs
- Binax NOW®: Tracheal and oropharyngeal swabs
- Confirmation of AI in hemagglutinating samples
Viral Transport Media (VTM)

- Preferred Media for use with FluDetect™
  - Brain-Heart Infusion (BHI) Broth, porcine origin
  - Tris-Buffered Tryptone Broth (TBTB)
  - Nutrient Broth (NB)
  - Peptone Broth (PB)
  - Viral Transport Media

- Preferred Media for use with Binax NOW®
  - Amies Media
  - BHI broth
  - Dulbecco’s Medium
  - Hank’s Balanced Salt Solution (BSS)

Sucrose-Phosphate Buffer is NOT suitable for use with this test
Interpretation of Results—FluDetect™

A **POSITIVE** sample is indicated by two pink/purple bands (control line and test line) that are clearly visible on the strip. The test line may be any intensity.

A negative result indicates that no detectable influenza type A virus is present in the sample.
Interpretation of Results—Binax NOW®

A NEGATIVE sample has a single pink/purple control line in the bottom third of the window.

A sample POSITIVE for INFLUENZA A has a pink/purple control line and a second pink/purple line in the MIDDLE third of the window.

A sample POSITIVE for INFLUENZA B has a pink/purple control line and a second pink/purple line in the TOP third of the window.

The test is INVALID if the control line remains BLUE or is not present at all, whether a sample line exists or not.
Interpretation of Results—Binax NOW®

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A sample POSITIVE for INFLUENZA B has a pink/purple control line and a second pink/purple line in the TOP third of the window.

The test is INVALID if the control line remains BLUE or is not present at all, whether a sample line exists or not.