Atlas Medical CE

Influenza A&B Strip

One Step Influenza A&B Antigen Test Strip

IVD For *in vitro* diagnostic and professional use only

Store at 2-30 °C

INTENDED USE

Atlas Influenza A&B Strip test is a rapid chromatographic immunoassay for the qualitative detection of Influenza type A and type B antigens in human nasopharyngeal specimens to aid in the diagnosis of Influenza infection.

INTRODUCTION

Although a wide variety of viral agents are capable of causing lower respiratory tract infections in children and adults, influenza A & B; respiratory syncytial virus (RSV); parainfluenza viruses 1, 2, and 3; and adenovirus is the most common. Of these, influenza A & B and RSV are the most important causes of medically attended acute respiratory illness. In addition to sharing a similar seasonal prevalence, it is important to remain cognizant that influenza A & B and RSV share overlapping clinical features and infection potential for certain high-risk patient groups (e.g., extremes of age, underlying cardiopulmonary disease and immunosuppression).

PRINCIPLE

Atlas Influenza A&B Strip is a qualitative lateral flow immunoassay for the detection of Influenza type A and type B antigen in human nasopharyngeal samples. The membrane is pre-coated with monoclonal antibodies against Influenza type A and type B antigens on the test line region. During testing, the sample reacts with the particle coated with anti-Influenza antibodies which was pre-dried on the test strip. The mixture moves upward on the membrane by capillary action. In the case of a positive result the specific antibodies present on the membrane will react with the mixture conjugate and generate one (A/B) or two (A and B) coloured lines. A green coloured band always appears in the control line and serves as verification that sufficient volume was added, that proper flow was obtained and as an internal control for the reagents.

MATERIALS

MATERIALS PROVIDED

- Strips.
- Package insert.
- Sample diluent.

MATERIALS NEEDED BUT NOT PROVIDED

- Specimen collection container.
- Disposable gloves.

PRECAUTIONS

- For professional in vitro diagnostic use only.
- Do not use after expiration date.
- The test should remain in the sealed pack until use.
- Do not use the test if pack is damaged.
- Follow Good Laboratory Practices, wear protective clothing, use disposal gloves, do not eat, drink or smoke in the area.
- All the specimens should be considered potentially hazardous and handled in the same manner as an infectious agent.
- The test should be discarded in a proper biohazard container after testing.
- The test must be carried out within 2 hours of opening the sealed bag.

STORAGE AND STABILITY

- Store as packaged in the sealed pack either at refrigerated or room temperature (2-30°C/36-86°F).
- The test is stable through the expiration date printed on the sealed pack.
- The test must remain in the sealed pack until use.
- Do not freeze.

SPECIMEN COLLECTION AND PREPATRATION:

Nasopharyngeal swab method:

- Bend shaft to follow curve of nasopharynx.
- Insert swab through nostril to posterior nasopharynx.
- Rotate swab a few times to obtain infected cells.
- For an optimal sample, repeat procedure using other nostril.

Nasopharyngeal aspirate method (suction apparatus, sterile suction catheter):

- Instill several drops of solution saline into each nostril.
- Place catheter through nostril to posterior nasopharynx.
- Apply gentle suction. Using rotating motion, slowly withdraw catheter.
- For an optimal sample, repeat procedure using other nostril.
- Send specimen to lab immediately (testing sensitivity decrease over time)
- Cool specimen to 2º-4ºC (36º-40ºF) during storage and transport.

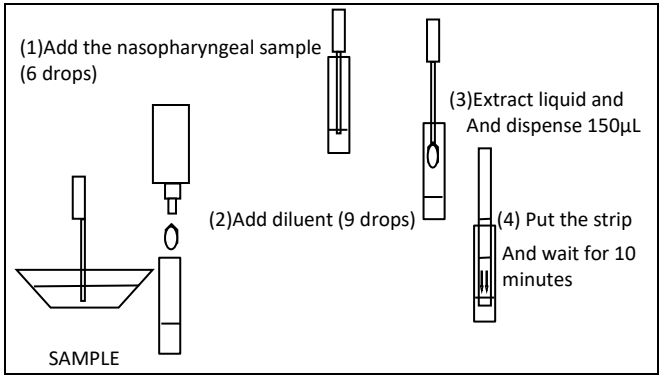
PROCEDURES

Allow the tests, samples and buffer to reach to room temperature (15-30ºC/59-86ºF) prior to testing. Do not open the pack until ready to perform the assay.

- **To process the collected nasopharyngeal wash or aspirate samples (see illustration 1):**

1. Use a separate pipette and testing tube for each sample.
2. Add the nasopharyngeal wash or aspirate sample (6 drops or 300µL) in a testing tube or vial.
3. Add the diluent (9 drops or 300-350 µL) and mix.
4. Extract some of the liquid and dispense 150µL in a new testing tube. Remove the Influenza A&B Strip from its sealed pack and use it as soon as possible.
5. Use a separate test strip for each sample.
6. Leave the test strip to stand vertically taking care of not surpassing the limit of immersion indicated with the arrows.
7. Start the timer.
8. Read the result at 10 minutes after dispensing the sample.

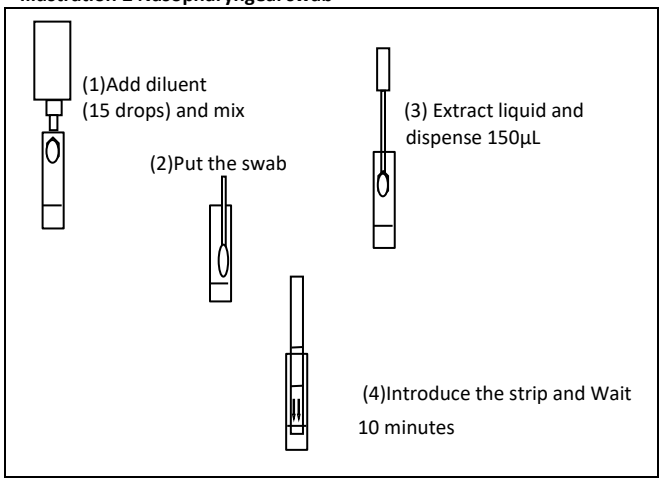
Illustration 1 Nasopharyngeal aspirate or wash



- ***To process the collected nasopharyngeal swab (see illustration 2):***

1. Use a separate testing tube or vial for each sample (swab). Add the diluent (15 drops or 500-600 µL) into the testing tube or vial, put the nasopharyngeal swab, mix and extract as much liquid possible from the swab.
2. Extract some of the liquid and dispense 150µL in a new testing tube. Remove the Influenza A&B Strip from its sealed pack and use it as soon as possible.
3. Use a separate test strip for each sample.
4. Leave the test strip to stand vertically taking care of not surpassing the limit of immersion indicated with the arrows.
5. Start the timer. Read the result at 10 minutes after dispensing the sample

Illustration 2 Nasopharyngeal swab



INTERPRETATION OF RESULTS

POSITIVE:

Influenza A positive: Two lines appear, a **green** control line (C) and **red** test line (T) above the green line (C).

Influenza B positive: Two lines appear, a **green** control line (C) and **blue** test line (T) below the green line.

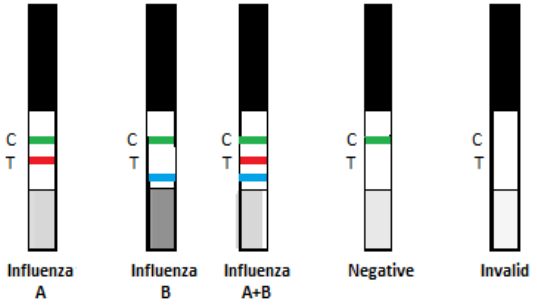
Influenza A+B positive: Three lines appear one **red** test line and one blue test line (T) and a **green** control line (C).

NEGATIVE:

Only one **green** line (control line (C)) appears in the white central zone of the reaction strip (Control zone).

INVALID:

Total absence of the green control coloured line regardless the appearance or not of the red and blue test lines. Note: Insufficient specimen volume, incorrect procedural techniques or deterioration of the reagents are the most likely reasons for control line failure. Review the procedure and repeat the test with a new test. If the problem persists, discontinue using the test kit and contact your local distributor. See illustration below.



NOTE SON THE INTERPREATION OF RESULT

The intensity of the red and blue coloured test lines in the result line region (T) will vary depending on the concentration of antigens in the specimen. However, neither the quantitative value, nor the rate of increase in antigens can be determined by this qualitative test.

EXPECTED VALUES

Influenza types A or B viruses cause epidemics of disease almost every winter. In the United States, these winter influenza epidemics can cause illness in 10% to 20% of people and are associated with an average of 36,000 deaths and more than 200,000 hospitalizations per year.

QUALITY CONTROL

Internal procedural controls are included in the test:

- A **green** line appearing in the control line region (C). It confirms sufficient specimen volume and correct procedural technique.

LIMITATIONS

- Influenza A&B Strip will only indicate the presence of Influenza in the specimen (qualitative detection) and should be used for the detection of Influenza type A and type B antigens in nasopharyngeal specimens only (from swab, aspirate or wash). Neither the quantitative value nor the rate of increase in Influenza antigens concentration can be determined by this test.
- If the test result is negative and clinical symptoms persist, additional testing using other clinical methods is recommended. A negative result does not at any time preclude the possibility of Influenza infection.
- This test provides a presumptive diagnosis of Influenza infections. All results must be interpreted together with other clinical information and laboratory findings available to the physician.

PERFORMANCE CHARACTERISTICS

Sensitivity and specificity

Different virus extract dilutions were tested directly in the sample diluent or spiked in a negative nasal specimen in accordance with the kit instructions.

The detection of Influenza type A and/or type B with Influenza A&B Strip showed >99% of sensitivity compared with another commercial rapid test and showed >99% of specificity compared with other commercial rapid test.

Cross-Reactivity

It was performed an evaluation to determine the cross reactivity of Influenza A&B Strip. There is not cross reactivity with common respiratory pathogens, other organisms and substances occasionally present in nasopharyngeal samples:

- Respiratory syncytial virus
- Adenovirus

REFERENCES

1. BARENFANGER et al., "Clinical and Financial Benefits of Rapid Detection of Respiratory Viruses: an Outcomes Study". Journal of Clinical Microbiology. August 2000, Vol 38 No 8, p. 2824-2828.

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	Catalogue Number		Temperature limit
IVD	*In Vitro* diagnostic medical device		Caution
Σ	Contains sufficient for <n> tests and Relative size		Consult instructions for use (IFU)
LOT	Batch code		Manufacturer
	Do not re-use		Use-by date
	Manufacturer fax number		Do not use if package is damaged
	Manufacturer telephone number		Date of Manufacture
	Keep away from sunlight		Keep dry