



# Anti-HIV

## Fast Test Kit

### (Immunofluorescence Assay)



IF1059 for Getein1100  
IF3059 for Getein1180  
IF2059 for Getein1600

### User Manual

## INTENDED USE

Anti-HIV Fast Test Kit (Immunofluorescence Assay) is intended for *in vitro* quantitative determination of human immunodeficiency virus (HIV) antibody in serum or plasma samples. This test can be used as an aid in the clinical diagnosis, prognosis and evaluation of acquired immunodeficiency syndrome (AIDS).

## SUMMARY

Human Immunodeficiency Virus (HIV) is the etiologic agent of Acquired Immunodeficiency Syndrome (AIDS). HIV infection can be transmitted by sexual contact, exposure to infected blood or blood products, or by an infected mother to the fetus. Within three to six weeks of exposure to HIV, infected individuals generally develop a brief, acute syndrome characterized by flu-like symptoms and associated with high levels of viremia in the peripheral blood.

In most infected individuals this is followed by an HIV-specific immune response and a decline of plasma viremia, usually within four to six weeks of the onset of symptoms. After seroconversion, infected individuals typically enter a clinically stable, asymptomatic phase that can last for years. The asymptomatic period is characterized by persistent, low-level plasma viremia and gradual depletion of CD4+ T lymphocytes, leading to severe immunodeficiency, multiple opportunistic infections, malignancies, and death.

## PRINCIPLE

This test uses an human HIV antigen I conjugated with fluorescence latex and another human HIV antigen II coated on the test line. After sample has been applied to the test strip, the fluorescence latex-labelled human HIV antigen I binds with the HIV antibody in sample and forms marked antigen-antibody complex. The complex moves to the detection zone by capillary action. Then marked

antigen-antibody complex is captured on the test line by the human HIV antigen II. The fluorescence intensity of the test line increases in proportion to the amount of HIV antibody in the sample. Then insert test card into Getein1100/Getein1180 Immunofluorescence Quantitative Analyzer/Automatically inserted by Getein1600 Immunofluorescence Quantitative Analyzer (hereafter referred to as Getein1100, Getein1180 and Getein1600), the concentration of HIV antibody in the sample will be measured and displayed on the screen. The value will be stored in Getein1100/Getein1180/Getein1600 and available for downloading. The result can be easily transmitted to the laboratory or hospital information system.

## CONTENTS

### 1. A kit for Getein1100/Getein1180 contains:

Package specifications: 25 tests/box, 10 tests/box

- 1) Getein Anti-HIV test card in a sealed pouch with desiccant
- 2) Disposable pipet
- 3) User manual: 1 piece/box
- 4) SD card: 1 piece/box

### 2. A kit for Getein1600 contains:

Package specifications: 2x24 tests/kit, 2x48 tests/kit

Sealed cartridge with 24/48 Getein Anti-HIV test cards  
User manual: 1 piece/box  
Materials required for Getein1600:

- 1) Sample diluent: 1 bottle/box
- 2) Box with pipette tips: 96 tips/box
- 3) Mixing plate: 1 piece/box

### 3. Sample diluent composition:

Phosphate buffered saline, proteins, detergent, preservative, stabilizer.

### 4. A test card consists of:

A plastic shell and a reagent strip which is composed of a sample pad, nitrocellulose membrane (one end of the membrane is coated with fluorescence latex-labeled human HIV antigen I, the test line is coated with another human HIV antigen II, and the control line is coated with rabbit anti-mouse IgG antibody), absorbent paper and liner.

**Note:** Do not mix or interchange different batches of kits.

## APPLICABLE DEVICE

Getein1100 Immunofluorescence Quantitative Analyzer  
Getein1180 Immunofluorescence Quantitative Analyzer  
Getein1600 Immunofluorescence Quantitative Analyzer

## STORAGE AND STABILITY

Store the test card at 4~30°C with a valid period of 24 months. Use the test card for Getein1100/Getein1180 within 1 hour once the foil pouch is opened.

For test card of Getein1600: If the cartridge is opened, it could be stable within 24 hours once exposure to air. Please put the cartridge back to the foil pouch and reseal along the entire edge of zip-seal. The remaining test cards should be used up within 7 days.  
Store the sample diluent at 0~30°C with a valid period of 24 months.

## PRECAUTIONS

1. For *in vitro* diagnostic use only.
2. Do not use the kit beyond the expiration date.
3. Do not use the test card if the foil pouch is damaged.
4. Do not open pouches until ready to perform the test.
5. Do not reuse the test card.
6. Do not reuse the pipet.
7. Handle all specimens as potentially infectious. Proper handling and disposal methods should follow by local regulations.
8. Carefully read and follow the user manual to ensure an appropriate test performance.

## SPECIMEN COLLECTION AND PREPARATION

1. This test can be used for **serum and plasma samples**. **Heparin, sodium citrate and EDTA** can be used as the anticoagulant for plasma. Samples should be free of hemolysis.
2. The test should be performed within 4 hours after blood collection.
3. If testing is delayed, serum and plasma samples may be stored up to 5 days at 2~8°C or stored at -20°C for 6 months before testing.
4. Refrigerated or frozen sample should be reached to room temperature and be homogeneous before testing. Avoid multiple freeze-thaw cycles.
5. Do not use heat-inactivated or hemolysis samples.
6. **SAMPLE VOLUME**(for Getein1100/Getein1180) : **100 µL**

## TEST PROCEDURE

1. Collect specimens according to user manual.
2. Test card, sample and reagent should reach to room temperature before testing.  
For Getein1100:
3. Confirm SD card lot No. in accordance with test kit lot No. Perform "SD card" calibration when necessary.
4. Remove the test card from the sealed pouch immediately before use. Label the test card with patient or control identification.
5. Put the test card on a clean table, horizontally placed.

6. Using sample transfer pipette, deliver **100 µL** of sample into the sample port on the test card.

7. **Reaction time: 15 minutes.** Insert the test card into Getein 1100 and click on "Start" icon after reaction time is elapsed. The result will be shown on the screen and printed automatically.

For Getein1180:

8. Confirm SD card lot No. in accordance with test kit lot No. Perform "SD card" calibration when necessary.

9. Enter testing interface of Getein1180.

10. Remove the test card from the sealed pouch immediately before use. Label the test card with patient or control identification.

11. Put the test card on a clean table, horizontally placed.

12. Using sample transfer pipette, deliver **100 µL** of sample into the sample port on the test card.

13. **Reaction time: 15minutes.** Insert the test card into Getein 1180 immediately after sample loading. The analyzer will count down the reaction time and automatically test the card after reaction time is elapsed. The result will be shown on the screen and printed automatically.

For Getein1600:

14. Each cartridge for Getein1600 contains a specific RFID card which can calibrate automatically.

15. Put the sample diluent at the correct position in Getein1600.

16. Place samples in the designed area of the sample holder, insert the holder and select the right test item. Getein1600 will do the testing and print the result automatically.

#### Notes:

1. It is required to perform "SD card" calibration when using a new batch of kits.
2. It is suggested to calibrate once for one batch of kits for Getein 1100/Getein1180.
3. Make sure the test card and the sample insertion is correct and complete.

## TEST RESULTS

1. Getein1100/Getein1180/Getein1600 can scan the test card automatically and display the result on the screen. For additional information, please refer to the user manual of Getein 1100/Getein1180/Getein1600.
2. Samples with concentration <1.00 S/CO are considered negative and no further testing is required.
3. Samples with concentration ≥1.00 S/CO are considered positive. All positive samples that are initially tested should be retested twice. If both retests are negative, the sample must be considered Anti-HIV negative. If any of the retest values are positive, it is considered Anti-HIV positive.
4. The result unit of HIV antibody detection uses S/CO.
5. Due to different methodologies or antibody specificity, there

may be deviations between the test results of different manufacturers, so they can't be compared directly.

## EXPECTED VALUE

Not applicable.

## PERFORMANCE CHARACTERISTICS

1. Positive coincidence rate: 3 positive HIV reference products or positive reference products certified by national positive reference products. The coincidence rate (+/+) is 3/3.
2. Negative coincidence rate: 20 negative HIV reference products or negative reference products certified by national negative reference products. The coincidence rate (-/-) is 20/20.
3. Measuring Range 1.00-1000.00 S/CO
4. Lower Detection Limit ≤1.00 S/CO
5. Within-run Precision ≤10%
6. Between-run Precision ≤15%

## LIMITATIONS












As with all diagnostic tests, a definitive clinical diagnosis should not be made based on the result of a single test. The test results should be interpreted considering all other test results and clinical information such as clinical signs and symptoms.

## REFERENCES

1. Zhongjie Wang, Poulami Talukder, Sidney M, et al. Fluorescent CD4 probe for potential HIV-1 gp120 protein detection [J]. Bioorganic & Medicinal Chemistry Letters, 2015, 25 (6).
2. Zhang Ping, Bao Lifan. The detection and application of HIV in clinic [J]. Chinese Journal of Nosocomiology, 2006 (09): 1020.
3. Pooya Aavani, Linda J.S. Allen. The role of CD4 T cells in immune system activation and viral reproduction in a simple model for HIV infection [J]. Applied Mathematical Modelling, 2019, 75.
4. Tsang, Chan, Tong, Wong, etc. Implementation and new insights in molecular diagnostics for HIV infection [J]. Expert Review of Molecular Diagnostics, 2018, 18 (5).
8. Zahra Rikhtegaran Tehrani, Kayhan Azadmanesh, Ehsan Mostafavi, et al. Development of an integrase-based ELISA for specific diagnosis of individuals infected with HIV [J]. Journal of Virological Methods, 2015, 215-216

## DESCRIPTION OF SYMBOLS USED

The following graphical symbols used in or found on Anti-HIV Fast Test Kit (Immunofluorescence Assay) are the most common ones appearing on medical devices and their packaging. They are explained in more detail in the European Standard EN ISO 15223-1:2016.

Key to symbols used			
	Manufacturer		Use-by date
	Do not re-use		Date of manufacture
	Consult instructions for use		Batch code
	Temperature limit		In vitro diagnostic medical device
	Contains sufficient for <n> tests		Do not use if package is damaged
	Catalogue number		

Thank you for purchasing Anti-HIV Fast Test Kit (Immunofluorescence Assay). Please read this user manual carefully before operating to ensure proper use.

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