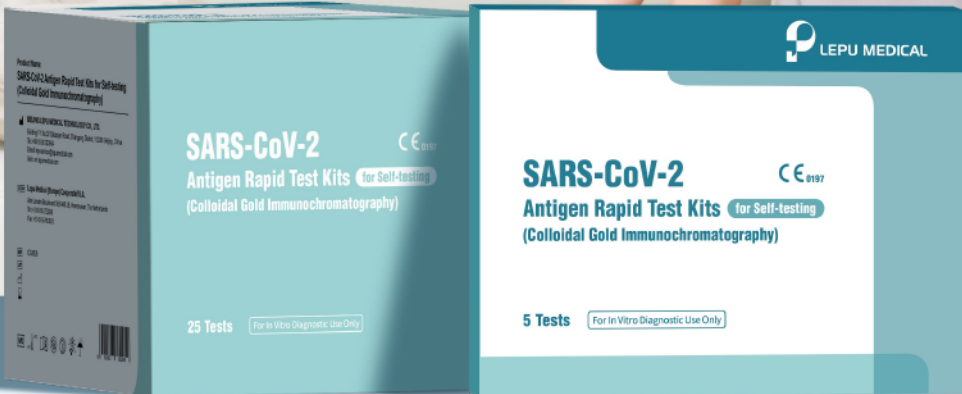
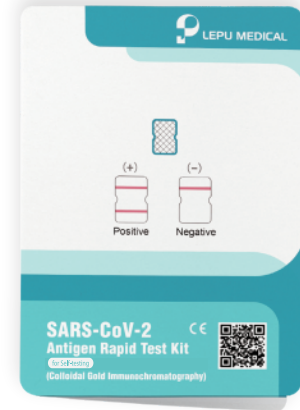


SARS-CoV-2

Antigen Rapid Test Kits for Self-testing

(Colloidal Gold Immunochromatography)

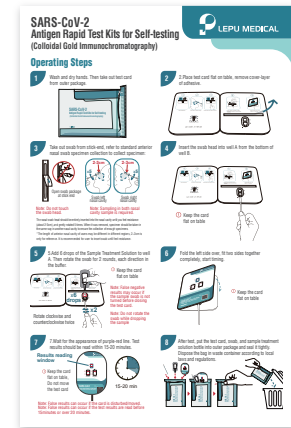




Swab



buffer



Operation Card

This product is a rapid, lateral flow immunoassay intended for the qualitative detection of SARS-CoV-2 nucleocapsid antigens from anterior nasal swabs that are self-collected by an individual aged 18 years or older or are collected by an adult from an individual younger than 18 years old. This test is intended for use in individuals with symptoms or other epidemiological reasons to suspect a COVID-19 infection. This product is intended to be used as an aid in the diagnosis of SARS-CoV-2 infection.

Product Feature



Non-invasive



Simple to use



No prescription needed



Rapid, get result in 15 minutes



Stable, with high accuracy



Inexpensive, cost-efficiency



Clinical performance

The clinical performance study for SARS-CoV-2 Antigen Rapid Test Kit was conducted in Germany. A total of 222 clinical samples were used to perform the test. The positive and negative samples were all confirmed by PCR. The diagnostic sensitivity and diagnostic specificity of the product was 95.9% (90.8-98.2%) and 100% (96.3-100.0%) respectively.

Results with correlation to Ct value of the positive samples were shown in the table below

Ct Value	Diagnostic sensitivity	95%CI
≤ 30	96.2 %	88.3-98.7%
≤ 32	96.0 %	90.0-98.4%
≤ 34	95.5%	90.0-98.1%
≤ 36	95.9 %	90.8- 98.2%

Operating Steps

1 Wash and dry hands. Then take out test card from outer package.

2 Place test card flat on table, remove cover-layer of adhesive.

3 Take out swab from stick-end, refer to standard anterior nasal swab specimen collection to collect specimen:

Note: Do not touch the swab head. **Note:** Sampling in both nasal cavity sample is required. The nasal swab head should be entirely inserted into the nasal cavity until you feel resistance (about 2-3cm), and gently rotated 5 times. When it was removed, specimen should be taken in the same way in another nasal cavity to ensure the collection of enough specimens. The length of anterior nasal cavity of users may be different in different regions, 2~3cm is only for reference. It is recommended for user to insert swab until feel resistance.

4 Insert the swab head into well A from the bottom of well B.

⚠ Keep the card flat on table

5 Add 6 drops of the Sample Treatment Solution to well A. Then rotate the swab for 2 rounds, each direction in the buffer.

⚠ Keep the card flat on table

Note: False negative results may occur if the sample swab is not turned before closing the test card.

Note: Do not rotate the swab while dropping the sample

6 Fold the left side over, fit two sides together completely, start timing.

⚠ Keep the card flat on table

7 Wait for the appearance of purple-red line. Test results should be read within 15-20 minutes.

Results reading window

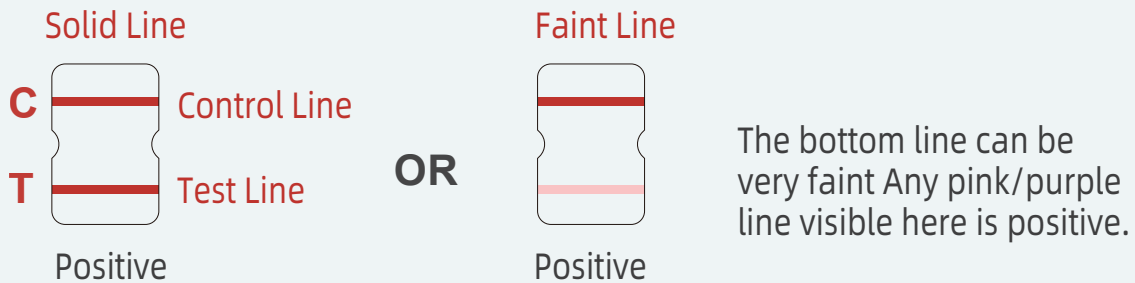
⚠ Keep the card flat on table, Do not move the test card

Note: False results can occur if the card is disturbed/moved. **Note:** False results can occur if the test results are read before 15minutes or over 20 minutes.

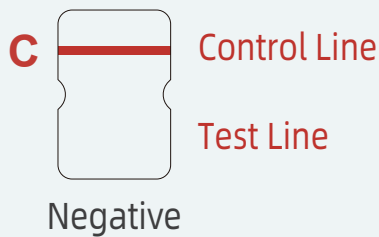
8 After test, put the test card, swab, and sample treatment solution bottle into outer package and seal it tightly. Dispose the bag in waste container according to local laws and regulations.

Interpretation of Test Results

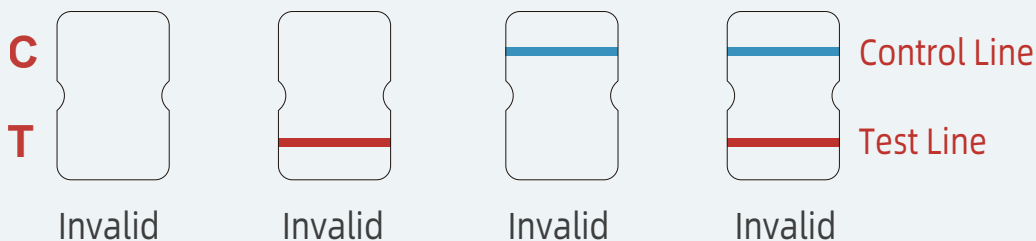
·Positive (+): A purple-red band appears in the Control Line (C) and Test Line (T).



·Negative (-): Only the Control Line (C) shows a purple-red band. No purple-red band appears in the Test Line (T).



·Invalid: If “no purple-red band appears in Control Line (C)” and “a blue band appears in the Control Line (C)” , it indicates that the operation process is incorrect or the test paper has been damaged. In this case, please read the instruction manual carefully again and retest with a new test paper. If the problem persists, please stop using this batch of products immediately and contact your local supplier.



Product specifications



1 Test



5 Tests



10 Tests



25 Tests



Self-testing



Home



Test Site



Airport



Hotel



Corporation



Mass Screening



SARS-CoV-2 Antigen Rapid Test Kits for Self-testing (Colloidal Gold Immunochromatography)

For In Vivo Diagnostic Use Only

Product Name: SARS-CoV-2 Antigen Rapid Test Kits for Self-testing (Colloidal Gold Immunochromatography)

No.	Component number	Specs.
1	Control Line	1 line
2	Test Line	1 line
3	Sample Treatment Solution	10 drops
4	Control Line	1 line
5	Test Line	1 line

Product Name: SARS-CoV-2 Antigen Rapid Test Kits for Self-testing (Colloidal Gold Immunochromatography)

Intended Use

This product is a rapid, lateral flow immunoassay intended for the qualitative detection of SARS-CoV-2 nucleocapsid antigen from anterior nasal swabs that are self-collected by an individual aged 18 years or older or are collected by an adult from an individual younger than 18 years old. This test is intended for use in individuals with symptoms or other epidemiological reasons to suspect a COVID-19 infection. This product is intended to be used as an aid in the diagnosis of SARS-CoV-2 infection.

Results are for the identification of the SARS-CoV-2 nucleocapsid protein antigen. The antigen is generally detectable in anterior nasal swab specimens during the acute phase of infection. Positive results indicate the presence of viral antigens, but the clinical correlation with past medical history and other diagnostic information is necessary to determine infection status. Positive results do not rule out bacterial infection or co-infection with other viruses. The agent detected may not be the definitive cause of disease. Negative results should be treated as presumptive and confirmation with a molecular assay, if necessary, for patient management, may be performed. Negative results do not rule out SARS-CoV-2 infection and should not be used as the sole basis for treatment or patient management decisions including infection control decisions. Negative results should be considered in the context of a patient's recent exposures, history and the presence of clinical signs and symptoms consistent with COVID-19. Individuals who test negative and continue to experience COVID-like symptoms should seek follow up care from their healthcare provider.

Introduction

Coronavirus, as the broad family of viruses, is a single strand plus RNA virus with an envelope. The virus is known to cause major diseases such as cold, Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The core protein of SARS-CoV-2 is N protein (Nucleocapsid), which is a protein component inside the virus. It is relatively conservative among coronaviruses and is commonly used as a diagnostic tool for coronaviruses. As the key receptor for SARS-CoV-2 to enter cells, ACE2 is significant for the study of viral infection mechanisms.

Principle

The current test kit is based on specific antibody-antigen reaction and immunoassay technology. The test strip consists of gold marked pad (coated with gold-marked SARS-CoV-2 N protein mouse anti human monoclonal antibody), sample pad, NC membrane (paired SARS-CoV-2 N protein mouse anti human monoclonal antibody coated on the test line (T) and goat anti-mouse IgG polyclonal antibody coated on the quality control line (C)) and absorbing paper.

During the test, the N protein in the specimen binds to the gold-marked SARS-CoV-2 N protein mouse anti human monoclonal antibody pre-coated on the gold marked pad, and the conjugate moves upward under the capillary effect, and then is trapped by N protein mouse anti human monoclonal antibody conjugated fixed in the Test Line (T). The higher the N protein content in the specimen, the more conjugates are trapped, and the darker the color of the Test Line (T). If there is no SARS-CoV-2 in the specimen or the virus content is below the detection limit, no color appears in the Test Line (T). A purple-red band will appear in the Control Line (C) regardless of whether there is a virus in the specimen. The purple-red band that appears in the Control Line (C) is the criteria for determining whether there is enough specimen and whether the chromatography process is normal.

Main Components

The product includes test cards, instruction for use, operation card, disposable sterile swabs and sample treatment solution. Each reagent kit contains 1 level container (SARS-CoV-2 antigen test card and 1 bag of decontant.

Disposable sterile swab information

Name	Application
Disposable sterile swab information	Nasal swab

CE 0123 MDD 93-42 EEC
 Manufacturer 1: Zhejiang Gongchang Medical Technology Co., Ltd. Bimcheng Industrial Area 318200 Hangzhou China

CE 0197 MDD 93-42 EEC
 Manufacturer 2: Jiangsu Changfeng Medical Industry Co., Ltd. Tongjiao Town, Guangling District, Suzhou, 215100 Guangling, China

CE 0197 MDD 93-42 EEC
 Manufacturer 3: Shenzhen KangDuo Biological Technology Co., Ltd. Lixiangshan industrial zone, Xixi Street, Nanshan district, Shenzhen 518057 Guangdong China

CE 0413 MDD 93-42 EEC
 Manufacturer 4: Shiduo Technology Co., Ltd. Zhaiji Industrial Park, Longcheng Street, Longgang district, Shenzhen, 518100 Guangdong, China

CE 0197 MDD 93-42 EEC
 Manufacturer 5: Goodhouse Medical Care Ltd. 1-2 Floor, 3-919, Yongfeng Street, Jiazhou District, Dalian 116100 Liaoning China

Specs.	Test card	Operation card	Sample treatment solution	Swabs
1. Test card	1	1	100µl±5	1 piece
2. Operation card	1	1	100µl±5	1 piece
3. Sample treatment solution	1	1	100µl±5	10 pieces
4. Swabs	1	1	100µl±5	25 pieces
5. Control Line	1	1	100µl±5	10 pieces
6. Test Line	1	1	100µl±5	10 pieces

Test card consists of paper shell, test strip, sample well and adhesive tape. The test strip, sample well and adhesive tape are attached on the paper shell. The test strip consists of gold marked pad (coated with gold-marked SARS-CoV-2 N protein mouse anti human monoclonal antibody), sample pad, NC membrane (paired SARS-CoV-2 N protein mouse anti human monoclonal antibody coated on the test line (T) and goat anti-mouse IgG polyclonal antibody coated on the quality control line (C)) and absorbing paper. The main components of sample treatment solution include tri, triethanol, sodium cacodylate.

General description

The SARS-CoV-2 Antigen Rapid Test Kits for Self-testing (Colloidal Gold Immunochromatography) contains 1 level container for operation.

* Test card: Test card which is book-shaped hinged test cardboard containing the test strip (for single use)
 * Sample Treatment Solution: Bottle containing sample treatment solution (for single use)
 * Nasal Swabs: Sterile swab (for single use)



Material required but not provided

Check or time or stopwatch, Waste container

Storage Conditions and Validity Period

1. The test kit should be stored in a dry and dark place with temperature of 4-30 °C, valid for 18 months.

2. The validity period of the test card is 1 hour after opening its inner package and it is suggested that the storage temperature should be 4-30 °C and the humidity should not exceed 70%.

3. The sample treatment solution should be used immediately after opening.

See package insert for manufacturing and expiration.

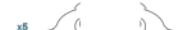
Specimen Requirements

This test kit is suitable for testing human anterior nasal swab specimens.

Specimen collection: During the collection process, relevant personnel should be well protected to avoid direct contact with the specimen. In case of accidental contact, timely disinfection should be carried out and necessary measures should be taken.

Anterior nasal swab specimen collection: During sampling, the nasal swab head should be entirely inserted into the nasal cavity until you feel resistance (about 2-3cm), and gently rotate 5 times. When it was removed, specimen should be taken in the same way in the other nasal cavity to ensure the collection of enough specimen.

See package insert for manufacturing and expiration.



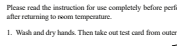
Swab Left Nasal Cavity Swab Right Nasal Cavity

Specimen preservation: After the specimens are collected, please test immediately after sampling. Do not complete the test over 1 hour.

Test Method

Please read the instruction for use completely before performing any test, and use the reagents and specimens after returning to room temperature.

1. Wash and dry hands. Then take out test card from outer package.



2. Place test card flat on table, remove cover-layer of adhesive.



3. Take out swab from stick-end, refer to standard anterior nasal swab specimen collection to collect specimen. The nasal swab head should be entirely inserted into the nasal cavity until you feel resistance (about 2-3cm), and gently rotate 5 times. When it was removed, specimen should be taken in the same way in another nasal cavity to ensure the collection of enough specimen.

The length of anterior nasal cavity of users may be different in different regions, 2-3cm is only for reference. It is recommended for user to insert swab until feel resistance.



Note: Do not touch the swab head.



Note: Sampling in both nasal cavity sample is required.

4. Insert the swab head into well A from the bottom of well B.



5. Add 6 drops of the Sample Treatment Solution to well A. Then rotate the swab for 2 rounds, each direction in the buffer.



Note: False negative results may occur if the sample swab is not turned before closing the test card.



Note: Do not rotate the swab while dropping the sample.



6. Fold the left side over, fit two sides together completely, start timing.



7. Wait for the appearance of purple-red line. Test results should be read within 15-20 minutes.



Results reading window

Note: False results can occur if the card is damaged/droved.

Note: False results can occur if the test results are read before 15 minutes or over 20 minutes.



Note: After test, put the test card, swab, and sample treatment solution into outer package and seal it tightly. Dispose the bag in medical waste container according to local laws and regulations.



DO NOT USE IF PACKAGE IS DAMAGED



DO NOT REUSE



TEMPERATURE LIMIT



MANUFACTURER



KEEP AWAY FROM SUNLIGHT



KEEP DRY



IN VITRO DIAGNOSTIC MEDICAL DEVICE



CE MARK



CATALOGUE NUMBER



DO NOT USE IF PACKAGE IS DAMAGED



DO NOT REUSE



TEMPERATURE LIMIT



MANUFACTURER



LOT



BATCH CODE



KEEP AWAY FROM SUNLIGHT



KEEP DRY



IN VITRO DIAGNOSTIC MEDICAL DEVICE



CE MARK



CATALOGUE NUMBER



DO NOT USE IF PACKAGE IS DAMAGED



DO NOT REUSE



TEMPERATURE LIMIT



MANUFACTURER



LOT



BATCH CODE



KEEP AWAY FROM SUNLIGHT



KEEP DRY



IN VITRO DIAGNOSTIC MEDICAL DEVICE



CE MARK



CATALOGUE NUMBER



DO NOT USE IF PACKAGE IS DAMAGED



DO NOT REUSE



TEMPERATURE LIMIT



MANUFACTURER



LOT



BATCH CODE



KEEP AWAY FROM SUNLIGHT



KEEP DRY



IN VITRO DIAGNOSTIC MEDICAL DEVICE



CE MARK



CATALOGUE NUMBER



DO NOT USE IF PACKAGE IS DAMAGED



Interpretation of Test Results

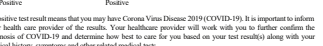
Positive (+): A purple-red band appears in the Control Line (C) and Test Line (T).



The bottom line can be very faint. An orange/pink/purple line visible here is positive.

A positive test result means that you may have Coronavirus Disease 2019 (COVID-19). It is important to inform your health care provider of the results. Your health care provider will use your test results along with your medical history, symptoms and other related medical tests.

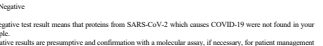
Negative (-): Only the Control Line (C) shows a purple-red band. No purple-red band appears in the Test Line (T).



A negative test result means that proteins from SARS-CoV-2 which causes COVID-19 were not found in your sample.

Negative results are presumptive and confirmation with a molecular assay, if necessary, for patient management, may be performed. Negative results should be considered in the context of an individual's recent exposures, history and the presence of clinical signs and symptoms consistent with COVID-19.

Invalid: If no purple-red band appears in Control Line (C) and a blue band appears in the Control Line (C), it indicates that the operation process is incorrect or the test paper has been damaged. In this case, please read the instruction manual carefully again and refer to it with a new test paper. If the problem persists, please stop using this batch of products immediately and contact your local supplier.



Limitations of the testing method

1. The test results of this product should be combined with other clinical information and comprehensively judged by physicians, and should not be used as the only criterion.

2. This product is only used to determine the novel coronavirus (SARS-CoV-2) antigen in the specimen.

3. A negative test result may occur if the level of antigen in a sample is below the detection limit of the test.

4. False negative results may occur if a specimen is improperly collected or handled.

5. Invalid results may occur if inadequate sample treatment buffer is used (e.g., < 6 drops). False positive results may occur if excessive sample treatment buffer is used (e.g., > 6 drops).

6. False negative results may occur if specimens are not well washed with the test card.

7. False negative results may occur if swabs are stored in their paper sheath after specimen collection.

8. False negative results are more likely after seven days or more of symptoms.

9. This test detects both viable (live) and non-viable SARS-CoV-2. Test performance depends on the amount of virus (antigen) in the sample and may or may not correlate with viral culture results performed on the same sample.

10. The performance of the SARS-CoV-2 Antigen Rapid Test Kits for Self-testing (Colloidal Gold Immunochromatography) was evaluated using the procedure provided in this product only. Modifications to these procedures may alter the performance of the test.

11. The presence of high concentration impurities may interfere with the product and may cause false positive results.

12. Positive test results do not rule out co-infections with other pathogens.

13. Negative test results are not indicative of other non-SARS viral or bacterial infections.

14. Negative results do not rule out COVID-19 infection and may be necessary to obtain additional testing with a molecular assay, if needed for patient management.

15. Positive test results do not differentiate between SARS-CoV and SARS-CoV-2.

Internal Quality Control

The product has a Test Line (T) and a Control Line (C) on the surface of the test card. Neither the Test Line (T) nor the Control Line (C) is visible in the result window before applying a specimen. The control line is used for procedural control and should always appear if the test procedure is performed properly and the test reagents of the control line are working.

Product Performance Index

Determination of the Limit of Detection

SARS-CoV-2 Antigen Rapid Test Kits limit of detection (LOD) was determined by evaluating different concentrations of inactivated new coronavirus culture medium. Negative anterior nasal swab specimens were diluted in 6 drops of sample treatment solution. 20 Swab sticks were combined and mixed thoroughly to create a clinical matrix pool to be used as the diluent. Inactivated new coronavirus culture medium was diluted in this natural nasal swab matrix pool to generate virus dilutions for testing.

The testing was performed according to the test procedure, with the virus dilutions applied directly onto the swab to prepare the control nasal swab samples.

The LOD was determined as the lowest virus concentration that was detected > 95% of the time (i.e., concentration at which at least 19 out of 20 replicates tested positive). The SARS-CoV-2 Antigen Rapid Test Kits for Self-testing (Colloidal Gold Immunochromatography) LOD in natural nasal swab matrix was confirmed 200 TCID50/mL.

Analysis of specificity

21. Cross-reactivity: No cross-reactivity was seen with the following microorganisms when tested at the concentration presented in the table below.

Potential Cross-Reaction	Test Concentration
Human coronavirus 229E	10 ⁶ TCID50/mL
Human coronavirus NL63	10 ⁶ TCID50/mL
Human coronavirus HKU1 recombination N protein	Shigella
Adenovirus	10 ⁶ TCID50/mL
Human metapneumovirus (hMPV)	10 ⁶ TCID50/mL
SARS coronavirus nucleocapsid N protein	Shigella
Parainfluenza virus 1	10 ⁶ TCID50/mL
Parainfluenza virus 2	10 ⁶ TCID50/mL
Parainfluenza virus 3	10 ⁶ TCID50/mL
Parainfluenza virus 4	10 ⁶ TCID50/mL
Respiratory syncytial virus	10 ⁶ TCID50/mL
Rotavirus	10 ⁶ TCID50/mL
Influenza B	10 ⁶ TCID50/mL
Enterovirus 71	10 ⁶ TCID50/mL
Respiratory syncytial virus	10 ⁶ TCID50/mL
Measles virus	10 ⁶ TCID50/mL
Varicella zoster virus	10 ⁶ TCID50/mL
Herpesvirus thymus	10 ⁶ TCID50/mL
Herpesvirus hominis	10 ⁶ TCID50/mL
Herpesvirus saimiri	10 ⁶