No.IFU-COVID-19Ag-SST-01,Ver.A/5
COVID-19 (SARS-CoV-2) Antigen Test Kit (Colloidal Gold) - Saliva

For self-testing.
For in vitro diagnostic use only.
Please read the instruction carefully before use.

## ( $\epsilon^{\prime}$


[Intended use]
This product is used for in vitro qualitative detection of the SARS-CoV-2 antigen in human saliva specimen. This product is intended for home self-testing as a rapid test for novel coronavirus infection. Both symptomatic and asymptomatic infections can be tested. The final diagnosis should be made by medical staff based on laboratory results and symptom analysis. This product is suitable for users over 10 years old. Users under 10 years old are advised to complete the self-test under the guidance and assistance of appropriate family members
[Materials and Components]

Test Device

Instruction Antigen Extraction Tube With Extraction Reagen

Sterilized Swa
Timer
(Materials required
[Preparation before the test]
Clean your hands, make sure
they are dry before starting the

test. $\quad$\begin{tabular}{l}
Read the instructions <br>
carefully

$\quad$

Check all parts of the <br>
test kit to make sure that <br>
all parts are complete <br>
and not damaged.

$\quad$

Dhate the Expinted on the <br>
foil pouch of the <br>
cassette.
\end{tabular}

## [Test Procedure]

Allow test device extraction reagent and specimens to equilibrate to room temperature ( $15 \sim 30^{\circ} \mathrm{C}$ ) prior to testing Please keep the temperature at $15 \sim 30{ }^{\circ} \mathrm{C}$ and the humidity at $20 \%-80 \%$ during the whole test.

## 1. <br> 

Open the package and take out the test device.Know the observation window and specimen well(S).It should be used within one hour.


Unscrew the cap of the extraction tub counterclockwise
3.


Press the pre-drilled circle, make a hole in the outer box, and then insert the bottom of the antigen extraction tub into the hole.
4.


Remove the sterilized swab from the packaging

## [Summary]

The novel coronavises belong to the $\beta$ genus. COVID-19 is an acute respiratory infectious disease. People are generally susceptible. Currently, the patients infected by the novel coronavirus are the main source of infection, asymptomatic infected people can also be an infectious source. Based on the current epidemiological investigation, the incubation period is 1 to 14 days, mostly 3 to 7 days. The main Man Once infoct with the S

SARS-CoV-2 virus, you may be hospitalized and some serious complications may occur. If without prompt treatment it may even lead to death.
[Test principle]
This product uses the double antibody sandwich method to detect the SARS-CoV-2 N protein. When the sample contains the coronavirus antigen, both the test line (C) and the control line ( T ) will appear, and the result will be positive. When the sample does not contain the coronavirus antigen or no coronavirus antigen is detected, the test line ( T ) will not appear, only control line (C) will appear.
[Limitations of inspection methods]

1. This test kit is only used for in vitro diagnosis.
2.This test kit is only used to detect human saliva. The results of other specimens may be wrong
2. This test kit is only used for qualitative detection and cannot indicate the level of SARS-CoV-2 antigen in the specimen.
3. This test kit is only a clinical auxiliary diagnostic tool. If the result is positive, it is recommended to use other methods for further examination in time and the doctor's diagnosis shall prevail
4. This test does not determine the aetiology of the respiratory infection caused by micro-organisms other than the SARS-CoV-2 virus.
6 This
6.This test can detect both the viable and the non-viable SARS-CoV-2 virus. the accuracy of the test depends on the quality of the swab sample-false negative results may be given following poor sampling.
7.Any failure to respect the test procedure may negatively impact the performance of the test and/or invalidate the test result. 8.If the result of the test is negative, yet clinical symptoms persist, it is advised that you carry out additional tests using other clinical methods. A negative result at no time rules out the presence of antigens of the SARS-CoV-2 virus in the sample, as they may be present but at a level inferior to the minimum detection level of the test, or if the sample has been collected incorrectly. 9.A negative result does not rule out infection by the SARS-CoV-2 virus, particularly in people who have come into contact with the virus. Follow-up tests with molecular diagnostics should be scheduled to rule out infection in these people. Persons who show symptoms of the disease but have a negative result until infection is ruled out should follow country-specific restrictions. 10.This test is not a substitute for a medical consultation, or for the result of a biological analysis carried out in a medical analysis laboratory

## [Warnings and Precautions

[Warnings and Precautions]

1. Read the instructions carefully before using the kit, and strictly control the reaction time. If you do not follow the instructions, 1. Read the instructions careft
2. Do not eat, drink, chew gum,
smoke or vape for at least 30 minutes before collecting saliva. False negative results can occur if
3. Guard against moisture, do not open the aluminum platinum bag before it is ready for testing. Do not use it if the aluminum foil bag is damaged or the test device is damp
4. Please use it within the validity period.
5. Do not replace the components in this kit with components in other kits.
6. Do not dilute the specimen when testing, otherwise you may get inaccurate results.
7. The kit shall be stored in strict accordance with the conditions specified in this manual. Please do not store the kit under . The test methods
ds and results must be interpreted in strict accordance with this specification.
8. Negative results may occur if the SARS-CoV-2 antigen titer in the specimen falls below the minimum detection limit of this
10.If the extraction reagent is individual packing and one piece per test device, the batch number, expiration date and other information cannot be marked separately due to the space is limited, but those information will be consistent with the corresponding test kit.
11.There is no reduction in sensitivity in the Deepblue Antigen test against the UK variant, Brazilian variant or the South African
9. Do not swallow the extraction reagent. If accidentally touch the human skin, eyes or mucous membranes, please rinse with water immediately. If discomfort occurs, please consult a doctor.
10. After the aluminum foil bag is unsealed, the test device should be used as soon as possible and within one hour ( 15 ~ $30^{\circ} \mathrm{C}$, Humidity $\leq 80 \%$ ).
[Sample Transport and Storage]

## [Quality Control]

Program control is included in the test. A red line appearing in the control region (C) is the internal procedural control . confirms sufficient volume of the specimen.

## [Performance index]

Limit of detection (LOD): $\mathrm{TCID}_{50} / \mathrm{mL}$ is 80 . This means that if the virus concentration in the body does not exceed this limit, the test result will be negative
2. High Dose Hook Effect: When the virus concentration exceeds $1.4 \times 10^{5} \mathrm{TCID}_{50} / \mathrm{mL}$, the result may be false negative. 3. Cross-reactivity: There is no cross-reactivity, including human coronavirus 229E, human coronavirus OC43, human coronavirus NL63, human coronavirus HKU1, MERS-coronavirus, SARS coronavirus, adenovirus 3, and paranfluenza H3N2 (Wisconsin/67/05), influenza A HIN1, influenza B (VICRTORIA), Rhinovirus (HRVA30), Haemophilus influenzae, Streptococcus pneumoniae Strettococcus pyogenes, Candida albicans, Bacillus pertussis, Mycoplasma pneumoniae, Chlamydia pneumoniae, Legionella pneumonia, Mycobacterium tuberculosis, Pneumocystis, Pseudomonas Bacteria, human pneumonia virus (hMPV), parainfluenza virus type 1, Staphylococcus epidermidis, Streptococcus salivarius, etc.
4. Microbial Interference Studies: There is no interference in studies on the following microorganisms or pathogens, including parainfluenza virus type 1, parainfluenza virus type 2, parainfluenza virus type 3, parainfluenza virus type 4a, adenovirus, human pneumonia virus (hMPV), A H3N2 Influenza (Wisconsin/67/05), HIN1 influenza, Haemophilus influenzae, Streptococcus pneumoniae, Streptococcus pyogenes, influenza B (Malaysia/2506/04), enterovirus, respiratory syncytial virus, Rhinovirus, Chlamydia pneumoniae, Legionella pneumoniae, Mycobacterium tuberculosis, Pneumocystis, Pseudomonas, Candida albicans, Bacillus pertussis, Mycoplasma pneumoniae, Staphylococcus epidermidis, Streptococcus salivarius, human coronavirus 229 E , hum 5. Endogenous Interf
. E Aladies: There is no interference in studies on the following substances, including blood

## [Clinical Performance]

The overall study scale was 600 cases, 150 positive samples and 450 negative samples
Statistics of test results of saliva samples:

| Reference RT-PCR Assay |  |  |  |  |  |  | 95\% Wilson Score CI |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | LCI | UCI |
| DEEP |  | POS | NEG | TOTAL | PPA | 98.7\% | 92.33\% | 99.07\% |
| BLUE | POS | 148 | 0 | 148 | NPA | >99.9\% | 98.17\% | 100\% |
| SARS- | NEG | 2 | 450 | 452 | PPV | >99.9\% | 98.17\% | 100\% |
| Ag Test | TOTAL | 150 | 450 | 600 | NPV | 99.6\% | 92.76\% | 99.31\% |

Sensitivity: $\mathbf{9 8} \mathbf{8} \%$ ( $\mathbf{9 5 \%}$ CI: $\mathbf{9 2 . 3 3 \%} \mathbf{- 9 9 . 0 7 \%}$ )
Specificity: $>99.9 \%$ ( $\mathbf{9 5 \%}$ CI: $\mathbf{9 8 . 1 7 \% - 1 0 0 \% \text { ) }}$
Sensitivity: Compared with the RT-PCR Assay, among people infected with SARS-CoV-2 virus, the probability of correct detection by the DeepBlue SARS-CoV-2 Ag Test Kit.
Specificity: Compared with the RT-PCR Assay, among people who have not been infected with SARS-CoV-2 virus, the probability of correct detection by the DeepBlue SARS-CoV-2 Ag Test Kit.
[Index of Symbols]

| IVD | The product is used in vitro | (2) | Do not re-use | 蔏 | Avoid excessive exposure to the sun |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | Expire date | [1] | Please read the instruction for use carefully before using | ml | Date of manufacture |
| $\triangle$ | Warning, please refer to the instructions in the package |  | Manufacturer | 2.) | Don't use the product when the package is damaged |


| c ${ }^{\prime \prime}$ | Temperature range of product storage | LOT | Batch number | $\sqrt{2}$ | Contain sufficient quantity for <n> tests |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - | European union authorization representative | 第 | Keep dry | $C \mathcal{E}_{1434}$ | CE Mark |

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