



Stock Code: 688068.SH

# Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold) Summary Data



Beijing Hotgen Biotech Co., Ltd.

## Explanation of The Export License

To whom it may concern

According to the No.12 Government Notice published by MOC, GAC and NMPA, CCCMHPIE announced the list of companies which were permitted to export novel coronavirus diagnostic products, Hotgen is in the list as aforesaid.



The screenshot shows the website of the China Council for the Promotion of International Trade (CCPIT) China Pharmaceutical and Health Products Import and Export Association (CCCMHPIE). The page displays a table with the following information:

10	北京热景生物技术股份有限公司 Beijing Hotgen biotech Co., Ltd.	91110115777090586H	欧盟CE
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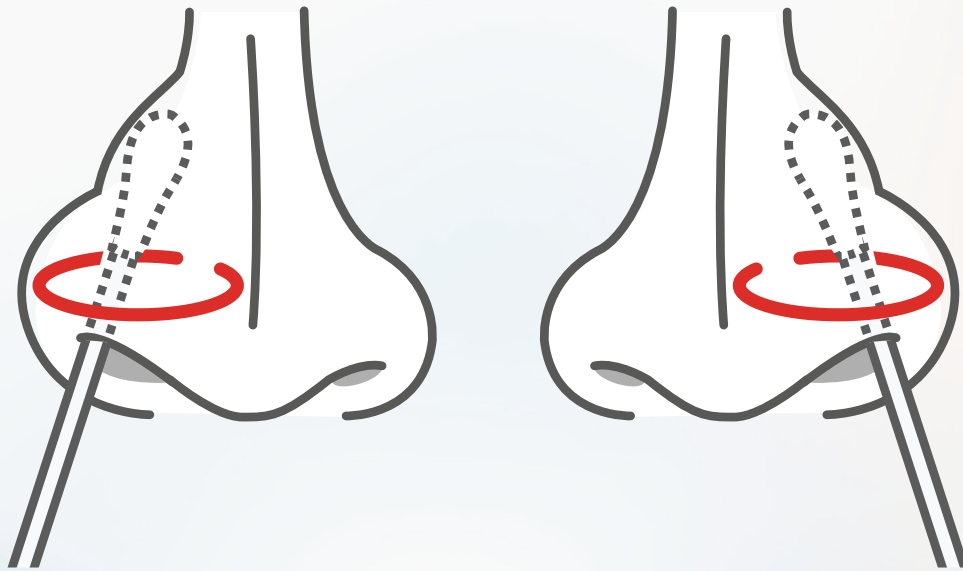
Beijing Hotgen biotech Co., Ltd.



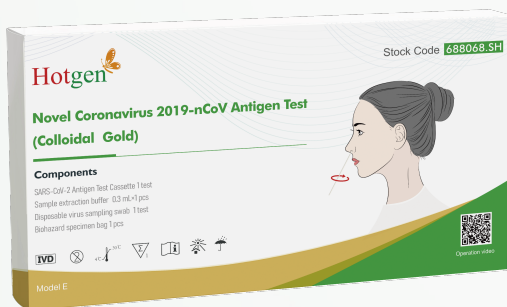
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## Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)



### Product Features

- High Accuracy, Specificity and Sensitivity ●
- No need instrument, get results in 15 minutes ●
- Room temperature storage ●
- Sample : Human Anterior Nares Swab ●
- Detect the presence of viral proteins ●
- Identify acute or early infection ●

### Clinical Performance

(Disease Course 5-7 Days)

Sensitivity: 96.30% ; Specificity: 99.13% ; Accuracy: 97.76%.

# Novel Coronavirus 2019-nCoV Antigen Test(Colloidal Gold)

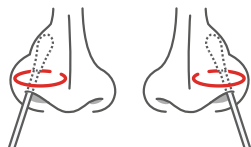
## Specimen Requirements

### 1 Sample collection

Gently insert the entire soft tip of the swab into one nostril for 1.5cm until you feel a bit of resistance.

Using medium pressure, rub the swab slowly in a circular motion around the inside wall of your nostril 4 times for a total time of 15 seconds.

Repeat the same process with the same swab in the other nostril.

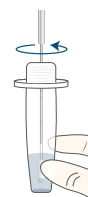


### 2 Sample treatment

The swab after sampling is soaked below the liquid level of the sample extraction buffer. Rotate and press 3 times. The swab soaking time is not less than 15s.



The swab head is pressed, then take out the swab and tighten the sampling tube.



### 3 Sample preservation

The treated sample should be tested within 1h.

## Test Procedure



Place the test cassette, sample extraction buffer at room temperature for 15-30 minutes, and equilibrate to room temperature (10-30 C).



Open the aluminum foil pouch of the test cassette, place the test cassette on a flat surface.

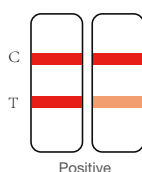


Add 4 drops of the treated sample into the sample well of the test cassette. (In case of chromatographic abnormalities, extra add 1-2 drops of the treated sample accordingly.) Incubate at 10-30 C for 15 minutes.

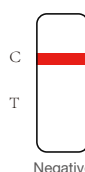


Observe the results after incubate at 10-30 C for 15 minutes. The result after 30 minutes is invalid.

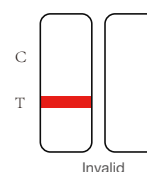
## Interpretation of result



Positive



Negative



Invalid

## Clinical Performance

This study enrolled a total of 223 human anterior nasal swab specimens, of which 108 were positives for RT-PCR Test, 115 negatives for RT-PCR Test; As for data collection of the corresponding RT-PCR Test results.

Assessment system Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)	Reference system (clinical diagnostic results)		
	Positive(+)	Negative(-)	Total
Positive(+)	104	1	105
Negative(-)	4	114	118
Total	108	115	223

**Sensitivity: 96.30%; Specificity: 99.13 %; Accuracy: 97.76%.**

## Product information

Product name	Test samples	Specifications	Storage conditions
Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)	Human Anterior Nares Swab	1T/kit, 5T/kit, 20T/kit, 40T/kit	4-30 C

# Company Profile

Beijing Hotgen Biotech Co., Ltd. (abbreviated as Hotgen Biotech, stock code: 688068) was established in June 2005, which is a high-tech enterprise focusing on the research& development, manufacture and sales of medical and public safety inspection products of in vitro diagnostics (IVD) in the field of biomedicine, as well as landed on the China Sci-Tech innovation board (STAR Market) in September 2019.

After several years of Research& development, Hotgen Biotech has developed an in vitro diagnostic reagent bioactive raw material development platform, a sugar chain abnormal protein detection (sugar capture) R&D technology platform, a Magnetic particles chemiluminescence R&D technology platform, a Up-converting Phosphor R&D technology platform, and a colloidal gold immune layer, The eight major technology platforms, such as the precipitation R&D platform, enzyme-linked immunoassay R&D technology platform, molecular diagnostics R&D platform, and instrument R&D technology platform, form a closed-loop system for in vitro diagnostic R&D and production. Hotgen Biotech has established a complete full level immunodiagnostic technology platform, from high-precision Up-converting Phosphor POCT (UPT series) to small, medium and large single- cartridge chemiluminescence platforms (MQ60 series), and then to large-scale full-automatic chemiluminescence Platform (C2000), which realizes the application of the immune diagnostic platform in the field of full diagnostic scenarios. Supporting products are widely used in the clinical and public safety fields. Specific users include hospitals at all levels, township health centers, third-party testing centers, and medical institutions, as well as medical and health institutions, as well as disease control centers, public security, fire protection, military, ports, food and medicine. Supervision, food and feed enterprises and other public safety fields.

Hotgen Biotech has won the second prize of the National Technology Invention Award, the Gold Medal of Independent Innovation, and the second prize of the Chinese Medical Science and Technology Award; In 2018, Hotgen Biotech was awarded the second prize of the "Technical Invention Category of China Rare Earth Science and Technology Award" by the China Rare Earth Society; Top 100 Private Scientific and Technological Innovations "and" Top 100 Medical Enterprises of the Future "; and" Postdoctoral Scientific Research Workstation "; major science and technology projects in the 12th and 13th five years, 863 plan, science and technology projects of the Beijing Science and Technology Commission, and Zhongguancun High Precision The project's major cutting-edge original technological achievements transformation and industrialization projects.

In the face of the COVID-19 epidemic situation, Beijing Hotgen Biotech Co.,Ltd has organized R&D developed a variety of Covid-19 detection reagents, including Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold), Novel Coronavirus 2019-nCoV Antigen Test (Up-converting Phosphor Immunochromatographic Technology), Coronavirus disease(COVID-19) Antibody Test (Colloidal Gold), Coronavirus disease(COVID-19) IgM/IgG Antibody Rapid Test (Colloidal Gold), Novel Coronavirus 2019-nCoV Antibody Test (Up-converting Phosphor Immunochromatographic Technology), Novel Coronavirus (SARS-CoV-2) Neutralizing Antibodies Test (Colloidal Gold), Coronavirus disease( COVID-19) Nucleic Acid Test Kit (PCR-Fluorescent Probe Method), Disposable virus sampling tube, Nucleic acid Automatic Purification System, Nucleic acid extraction reagent, Biological Sample Releaser kit, etc.It is imperative to fight the epidemic Helping the global fight against epidemics!

Since its establishment, the company has continuously grown its business and has now achieved group development. At present, Hotgen (Langfang), Hotgen (Jilin), Weikekang Technology, Shunjing Biological and many other subsidiaries have been established. Hotgen Biotech marketing and service network has covered all regions of the country. Each province is equipped with professional technical service engineers, academic engineers, etc. who are responsible for pre-sales and after-sales work to meet customer needs. The company takes "developing biotechnology and benefiting human health" as its mission, "quality determines the company's life and death, customers determine the company's success or failure, talents determine the company's rise and fall, innovation determines the company's future" as its core values, and "tests because of me advanced" as its philosophy , High ambitions, technological entrepreneurship, and industrial prosperity!

# ***Declaration of Conformity***

**Manufacturer:**

Name: Beijing Hotgen Biotech Co.,Ltd

Address: 9th building, No.9 Tianfu Street, Biomedical Base,Daxing District, Beijing,  
102600, P.R.China

**European Representative:**

MedNet GmbH

Borkstrasse 10,48163 Muenster,Germany

**Product Name:**

Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)

Novel Coronavirus 2019-nCoV Antigen Test (Up-converting Phosphor Immunochromatographic  
Technology)

Classification : **Others of ANNEX II of IVDD**

Conformity Assessment Route: **Annex III**

*We herewith declare that the above mentioned products meet the transposition into national law, the provisions of the following EC Council Directives and Standards. All supporting documentations are retained under the premises of the manufacturer.*

**General applicable directives:**

In Vitro Diagnostic Medical Devices DIRECTIVE 98/79/EC

**Harmonized standards:**

EN ISO 13485:2016, EN ISO 15223-1:2016, EN ISO 14971:2012,EN 13975:2003,  
EN ISO 18113-1:2011, EN ISO 18113-2:2011,EN 13612:2002,EN ISO 17511:2003,  
EN ISO 23640:2015, EN 13641:2002,EN 13975:2003, EN 62366:2008



Signature:

*Lin Changqing*

Name:

Lin Changqing

Title:

General manager

Place: Beijing,China.

Date of Issue: Aug 27, 2020

## Allgemeine Anzeigepflicht nach §§ 25 und 30 Abs. 2 MPG General Obligation to Notify pursuant to §§ 25 and 30 (2) Medical Devices Act, MPG

### Formblatt für In-vitro-Diagnostika / Form for In Vitro Diagnostic Medical Devices

<b>Zuständige Behörde / Competent authority</b>			
	Code <b>DE/CA22</b>		
	Bezeichnung / Name <b>Bezirksregierung Münster, Dezernat 24</b>		
	Staat / State <b>Deutschland</b>		Land / Federal state <b>Nordrhein-Westfalen</b>
	Ort / City <b>Münster</b>		Postleitzahl / Postal code <b>48143</b>
	Straße, Haus-Nr. / Street, house no. <b>Domplatz 36</b>		
	Telefon / Phone <b>+49-251-4110</b>		Telefax / Fax <b>+49-251-4112525</b>
	E-Mail / E-mail <b>mitteilungen-dimdi@brms.nrw.de</b>		

<b>Anzeige / Notification</b>			
	Registrierdatum bei der zuständigen Behörde Registration date at competent authority <b>25.01.2021</b>		Registriernummer / Registration number <b>DE/CA22/419-1848.1-IVD</b>
	Typ der Anzeige / Notification type <input type="checkbox"/> Erstanzeige / Initial notification <input type="checkbox"/> Änderungsanzeige / Notification of change <input type="checkbox"/> Widerrufsanzeige / Notification of withdrawal		
	Frühere Registriernummer bei Änderungs- und Widerrufsanzeige Previous registration number if notification has been changed or withdrawn <b>DE/CA22/419-1848-IVD</b>		
	Anzeigender nach § 25 MPG / Reporter pursuant to § 25 Medical Devices Act, MPG <input type="checkbox"/> Hersteller / Manufacturer <input type="checkbox"/> Bevollmächtigter / Authorised Representative <input type="checkbox"/> Einführer / Importer <input type="checkbox"/> Verantwortlicher für das Zusammensetzen von Systemen oder Behandlungseinheiten nach § 10 Abs. 1 und 2 MPG \ Assembler of systems or procedure packs pursuant to § 10 (1) and (2) Medical Devices Act, MPG <input type="checkbox"/> Betrieb oder Einrichtung (aufbereiten) nach § 25 Abs. 1 MPG i. V. m. § 4 Abs. 2 MPBetreibV Institution (processing) pursuant to § 25 (1) Medical Devices Act, MPG in connection with § 4 (2) MPBetreibV <input type="checkbox"/> Betrieb oder Einrichtung (sterilisieren) nach § 25 Abs. 2 i. V. m. § 10 Abs. 3 MPG Institution (sterilizing) pursuant to § 25 (2) in connection with § 10 (3) Medical Devices Act, MPG		



<b>Anzeigender / Reporting organisation (person)</b>	
Code	<b>DE/0000012115</b>
Bezeichnung / Name	<b>MedNet GmbH</b>
Staat / State	<b>Deutschland</b>
Land / Federal state	<b>Nordrhein-Westfalen</b>
Ort / City	<b>Muenster</b>
Postleitzahl / Postal code	<b>48163</b>
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Telefon / Phone	<b>+49-251-32266-0</b>
Telefax / Fax	<b>+49-251-32266-22</b>
E-Mail / E-mail <b>ear-admin@medneteuropa.com</b>	

<b>Hersteller / Manufacturer</b>	
Bezeichnung / Name	<b>Beijing Hotgen Biotech Co., Ltd.</b>
Staat / State	<b>CN</b>
Ort / City	<b>Beijing</b>
Postleitzahl / Postal code	<b>102600</b>
Straße, Haus-Nr. / Street, house no. <b>9th Building, No. 9 Tianfu Street, Biomedical Base, Daxing District</b>	
Telefon / Phone	<b>0086-10-50973600</b>
Telefax / Fax	
E-Mail / E-mail	

<b>Sicherheitsbeauftragter für Medizinprodukte nach § 30 Abs. 2 MPG 9) Safety officer for medical devices pursuant to § 30 (2) Medical Devices Act, MPG</b>	
Bezeichnung / Name	<b>Nicole Böhnisch</b>
Staat / State	<b>Deutschland</b>
Land / Federal state	<b>Nordrhein-Westfalen</b>
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E-Mail / E-mail <b>info@medneteuropa.com</b>	

<b>Vertreter / Deputy (optional)</b>	
Bezeichnung / Name <b>Kristin Zurlinden</b>	
Telefon / Phone <b>+49 251 32266 0</b>	Telefax / Fax <b>+49 251 32266 22</b>
E-Mail / E-mail <b>info@medneteurope.com</b>	
£ Erstanzeige / Initial notification	
S Änderungsanzeige / Notification of change	

<b>In-vitro-Diagnostikum / In vitro diagnostic medical device</b>	
Klassifizierung / Classification £ Produkt der Liste A, Anhang II / Device of List A, Annex II £ Produkt der Liste B, Anhang II / Device of List B, Annex II £ Produkt zur Eigenanwendung / Device for self-testing S Sonstiges Produkt / Other device (all devices except Annex II and self-testing devices)	
App (Software auf mobilen Endgeräten)	£ ja / yes    S nein / no
Anzeige nach § 25 Abs. 3 Nummer 3 MPG Notification pursuant to § 25 (3) number 3 Medical Devices Act, MPG S "Neues In-vitro-Diagnostikum / New in vitro diagnostic medical device"	
Handelsname des Produktes / Trade name of the device <b>Hotgen Biotech, CORA CHECK-19</b>	
Produktbezeichnung / Name of device <b>Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)</b>	
Angabe der benutzten Nomenklatur / Nomenclature used S EDMS-Klassifikation / EDMS Classification £ GMDN	
Nomenklaturcode / Nomenclature code <b>15-04-80-90-00</b>	
Nomenklaturbezeichnung / Nomenclature term <b>OTHER VIRAL ANTIGEN/ANTIBODY DETECTION</b>	
Kurzbeschreibung / Short description In Deutsch / In German <b>Modelle A+B:</b> <b>Dieser Kit wird für die qualitative In-vitro-Bestimmung von neuem Coronavirus-Antigen in menschlichen Nasen- oder Rachenabstrichen verwendet. Er dient zur schnellen Untersuchung von Verdachtsfällen auf neuartige Coronaviren und kann auch als Bestätigungsmethode für den Nukleinsäurenachweis in entladenen Fällen verwendet werden.</b>  <b>Modelle C+D (Neuartiges Coronavirus 2019-nCoV-Antigentest (kolloidales Gold) - Speichel):</b> <b>Dieser Kit dient zur qualitativen in vitro-Bestimmung des neuen Coronavirus-Antigens im menschlichen Speichel. Er dient zur Schnelluntersuchung bei Verdacht auf neuartige Coronaviren und kann auch als Bestätigungsmethode für den Nukleinsäurenachweis in entladenen Fällen verwendet werden.</b>	
In Englisch / In English <b>Models A+B:</b> <b>This kit is used for in-vitro qualitative determination of novel coronavirus antigen in human nasal swabs or throat swabs. It is used as rapid investigation for suspected cases of novel coronavirus can also be used as a reconfirmation method for nucleic acid detection in discharged cases.</b>  <b>Models C+D (Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold) - Saliva):</b> <b>This kit is used for in vitro qualitative determination of novel coronavirus antigen in human saliva. It is used as rapid investigation for suspected cases of novel coronavirus, can also be used as a reconfirmation method for nucleic acid detection in discharged cases.</b>	

<b>Zusätzliche Angaben im Falle der In-vitro-Diagnostika gemäß Anhang II und der In-vitro-Diagnostika zur Eigenanwendung / Additional information for Annex II and self-testing in vitro diagnostic medical devices</b>	
	Nummer(n) der Bescheinigung(en) / Certificate number(s)
	E In Übereinstimmung mit den Gemeinsamen Technischen Spezifikationen (für Produkte gem. Anhang II, Liste A) In conformity with Common Technical Specifications (for Annex II List A devices)
	Ergebnisse der Leistungsbewertung Outcome of performance evaluation

Ich versichere, dass die Angaben nach bestem Wissen und Gewissen gemacht wurden.  
I affirm that the information given above is correct to the best of my knowledge.

Ort **Münster** Datum **2021-01-15**  
City ..... Date .....

Name **Nicole Böhnisch**  
.....

Unterschrift  
Signature

<b>Bearbeitungsvermerke / Processing notes</b> Nur von der zuständigen Behörde auszufüllen / To be filled in only by the competent authority	
Bearbeiter / Person responsible <b>Frau Silvia Wenge</b>	Telefon / Phone <b>0251-4115936</b>



obtained after 30 minutes is invalid.

## Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)

### Instructions for Use

#### FREQUENTLY ASKED QUESTIONS

- When can I test myself?

You can always test yourself whether you have symptoms or not. Please note that the test result is a snapshot that is valid for this point in time. Tests should therefore be repeated according to the regulations of the responsible authorities.

- What should I pay attention to in order to obtain the most exact test result possible?

Always follow the instructions for use exactly. Perform the test immediately after collecting the sample. Dispense the drops from the test tube only into the designated well of the test cassette. Dispense four drops from the sample tube. Too many or too few drops can lead to an incorrect or invalid test result.

- The test strip is very discolored. What is the reason or what am I doing wrong?

The reason for a clearly visible discoloration of the test strip is that too large a quantity of drops has been dispensed from the sample tube into the test cassette well. The indicator strip can only hold a limited amount of liquid. If the control line does not appear or the test strip is very discolored, please repeat the test with a new test kit according to the instructions for use.

- What should I do if I took the test but didn't see a control line?

In this case, the test result is to be considered invalid. Please repeat the test with a new test kit according to the instructions for use.

- I am unsure of the interpretation of the results. What should I do?

If you cannot clearly determine the result of the test, contact the nearest medical facility applying the regulations of your local authority.

- My result is positive. What should I do?

If a horizontal colored line is visible in the control area (C) as well as in the test area (T), your result is positive and you should immediately contact the medical facility in accordance with the requirements of your local authorities. Your test result may be checked and the next steps will be explained to you.

- My result is negative. What should I do?

If only a horizontal colored line is visible in the control area (C), this may mean that you are negative or that the viral load is too low to be recognized by the test. If you experience symptoms such as headaches, migraines, fever, loss of sense of smell and taste, contact the nearest medical facility applying the regulations of your local authority. In addition, you can repeat the test with a new test kit.

- Can this test cassette be reused or used by multiple people?

This test cassette is for one-time use and cannot be reused or used by multiple people.

#### MODEL NUMBER

Model A

#### SPECIFICATIONS

1T/kit, 5T/kit, 20T/kit, 25T/kit, 40T/kit, 50T/kit

#### INTENDED USE

This kit is used for in vitro qualitative determination of SARS-CoV-2 antigens in human anterior nasal swab samples. It can be used for rapid investigation of suspected COVID-19 cases, and can also be used as a reconfirmation method for nucleic acid detection in discharged cases.

A positive test result indicates that the sample contains SARS-CoV-2 antigen. A negative test result does not rule out the possibility of infection.

This kit is for home use by laymen in a non-laboratory setting (such as person's home or certain non-topical sites such as offices, sporting events, airports, schools etc.). The test results of this kit are for clinical reference only. It is recommended to conduct a comprehensive analysis of the condition based on

the patient's clinical manifestations and other laboratory tests.

#### COMPONENTS

1. SARS-CoV-2 Antigen Test Cassette
2. Sample extraction buffer
3. Disposable virus sampling swab
4. Biohazard specimen bag

**Note:** Components of different batches cannot be mixed.

#### SPECIMEN REQUIREMENTS

##### 1. Sample collection



- Gently insert the entire soft tip of the swab into one nostril for 1.5cm until you feel a bit of resistance.
- Using medium pressure, rub the swab slowly in a circular motion around the inside wall of your nostril 4 times for a total time of 15 seconds.
- Repeat the same process with the same swab in the other nostril.

##### 2. Sample treatment



- The swab after sampling is soaked below the liquid level of the sample extraction buffer. Rotate and press 3 times. The swab soaking time is not less than 15 seconds.



- The swab head is pressed, then take out the swab and tighten the sampling tube.

##### 3. Sample preservation: The treated sample should be tested within 1h.

#### TEST PROCEDURE



1. Place the test cassette, sample extraction buffer at room temperature for 15~30 minutes, and equilibrate to room temperature (10~30°C).



2. Open the aluminum foil pouch of the test cassette, place the test cassette on a flat surface.



3. Add 4 drops of the treated sample into the sample well of the test cassette. (In case of chromatographic abnormalities, add an extra of 1~2 drops of the treated sample accordingly). Incubate at 10~30°C for 15 minutes.
4. Observe the results after incubating at 10~30°C for 15 minutes. The result

#### DISPOSAL THE SAMPLE AND CLEAN-UP



- Place the test cassette, sample extraction buffer and disposable virus sampling swab in the biohazard specimen bag and seal the bag.

- Throw away the remaining sample kit items.

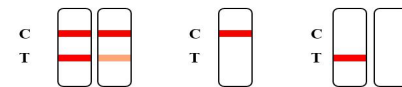
- Re-apply hand sanitizer.

#### INTERPRETATION OF RESULT

**Positive:** Two color bands appear in the observation window, that is, a red or magenta line appears at the position of the quality control line (C line) and the detection line (T line) (as shown in result 1), indicating the test result of SARS-CoV-2 antigens in the sample is positive.

**Negative:** A red or magenta line appears at the position of the quality control line (C line) in the observation window, and no line appears at the position of the test line (T line) (as shown in the result 2), indicating the test result of the SARS-CoV-2 antigens in the sample is negative or the concentration is below the limit of detection of the kit.

**Invalid:** No line appears in the position of the quality control line (line C) in the observation window (as shown in result 3), indicating that the test is invalid, and the sample should be recollected and retested.



Result 1: Positive

Result 2: Negative

Result 3: Invalid

#### PRINCIPLE OF THE ASSAY

This kit is based on the colloidal gold immunochromatographic technology, and uses the double antibody sandwich method to detect N protein of SARS-CoV-2 antigen in human anterior nasal swab samples. The detection line (T line) of the SARS-CoV-2 antigen test cassette was coated with SARS-CoV-2 antibody, and the quality control line (C line) was coated with sheep anti-mouse antibody. During the test, the sample is dropped into the test cassette and the liquid is chromatographed upward under the capillary effect. The SARS-CoV-2 antigen in the sample first binds to the colloidal gold-labelled SARS-CoV-2 antibody to form a solid phase SARS-CoV-2 antibody-SARS-CoV-2 antigen-labelled SARS-CoV-2 antibody-colloidal gold complex at the T line position, and form a solid phase sheep anti-mouse-labelled SARS-CoV-2 antibody-colloidal gold complex was formed at the C line position. After the test is completed, observe the colloidal

gold color reaction of T line and C line to determine results of SARS-CoV-2 antigen in human anterior nasal swab samples.

**STORAGE AND SHELF LIFE**

- The kit should be stored at 4~ 30°C, the shelf life is set for 18 months.
- After the foil bag is opened, it should be used within 30 minutes (temperature 10~30°C, humidity ≤70%).
- The sample extraction buffer should be used within 18 months after opening (temperature 10~30°C, humidity ≤70%).

See label for manufacture date and expiration date.

**LIMITATIONS**

- The test result of this kit is not the only confirmation indicator of clinical indications. The infection should be confirmed by a specialist along with other laboratory results, clinical symptoms, epidemiology, and additional clinical data.
- In the early stages of infection, low levels of antigen expression can result in negative results.
- The sample test results are related to the quality of sample collection, processing, transportation and storage. Any errors may lead to inaccurate results. If cross-contamination is not controlled during sample processing, false positive results may occur.

**PERFORMANCE CHARACTERISTICS**

- Limit of Detection (LoD)**  
Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold) has been confirmed can detect SARS-CoV-2 at  $2.5 \times 10^{2.2}$  TCID<sub>50</sub>/mL, which was collected from a confirmed COVID-19 patient in China.
- Study on Exogenous/Endogenous Interference Substances:**  
The potential interfering substances listed below do not interfere.

**(1) Exogenous factor**

No.	Exogenous factor	Interfering substances	Test conc.
1	Nasal sprays	Phenylephrine	128µg/mL
2		Oxymetazoline	128µg/mL
3		Saline Nasal Spray 10%	10%(v/v)
4	Nasal corticosteroids	Dexamethasone	2µg/mL
5		Flunisolide	0.2µg/mL
6		Triamcinolone acetonide	0.2µg/mL
7		Mometasone	0.5µg/mL
8	Throat lozenges	Sirostep (flurbiprofen 8.75mg)	5% (w/v, 50mg/mL)
9		Throat candy	5% (w/v, 50mg/mL)
10	Oral anaesthetic	Anbesol (Benzocaine 20%)	5% (v/v)
11		α-Interferon-2b	0.01µg/mL
12		Zanamivir (Influenza)	2µg/mL
13		Ribavirin (HCV)	0.2µg/mL
14	Anti-viral drugs	Osetamivir (Influenza)	2µg/mL
15		Peramivir (Influenza)	60µg/mL
16		Lopinavir (HIV)	80µg/mL
17		Ritonavir (HIV)	20µg/mL
18		Arbidol (Influenza)	40µg/mL
19		Levofloxacin Tablets	40µg/mL
20		Azithromycin	200µg/mL
21	Antibiotic	Ceftriaxone	800µg/mL
22		Meropenem	100µg/mL
23	Antibacterial, systemic	Tobramycin	128µg/mL
24	Other	Mucin: bovine submaxillary gland, type	100 µg/mL
25		Biotin	100 µg/mL

**(2) Endogenous factor**

No.	Endogenous factor	Interfering substances	Test conc.
1	Autoimmune disease	Human anti-mouse antibody, HAMA	800 ng/mL

2	Serum protein	Whole Blood (human), EDTA anticoagulated	10% (w/w)
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**3. Cross-Reactivity & Microbial interference:**

There is no cross-reaction and no interference with the potentially cross-reactive microorganisms listed below.

No.	Crossing reacting substance	Strain	Concentration of cross reacting substance	
1	Human Coronavirus	HKU1	$2 \times 10^2$ TCID <sub>50</sub> /mL	
2		229E	$2 \times 10^2$ TCID <sub>50</sub> /mL	
3		OC43	$2 \times 10^2$ TCID <sub>50</sub> /mL	
4		NL63	$2 \times 10^2$ TCID <sub>50</sub> /mL	
5		SARS	$2 \times 10^2$ TCID <sub>50</sub> /mL	
6	Adenovirus	MERS	$2 \times 10^2$ TCID <sub>50</sub> /mL	
7		Type 1	$2 \times 10^2$ TCID <sub>50</sub> /mL	
8		Type 2	$2 \times 10^2$ TCID <sub>50</sub> /mL	
9		Type 3	$2 \times 10^2$ TCID <sub>50</sub> /mL	
10		Type 4	$2 \times 10^2$ TCID <sub>50</sub> /mL	
11	Human Metapneumovirus (hMPV)	Type 5	$2 \times 10^2$ TCID <sub>50</sub> /mL	
12		Type 7	$2 \times 10^2$ TCID <sub>50</sub> /mL	
13		Type 5S	$2 \times 10^2$ TCID <sub>50</sub> /mL	
14		hMPV 3 Type B1 / Peru2-2002	$2 \times 10^2$ TCID <sub>50</sub> /mL	
15		hMPV 16 Type A1 / WJ10-2003	$2 \times 10^2$ TCID <sub>50</sub> /mL	
16	Parainfluenza virus	Type 1	$2 \times 10^2$ TCID <sub>50</sub> /mL	
17		Type 2	$2 \times 10^2$ TCID <sub>50</sub> /mL	
18		Type 3	$2 \times 10^2$ TCID <sub>50</sub> /mL	
19		Type 4A	$2 \times 10^2$ TCID <sub>50</sub> /mL	
20		Influenza A	H1N1	$2 \times 10^2$ TCID <sub>50</sub> /mL
21	H3N2		$2 \times 10^2$ TCID <sub>50</sub> /mL	
22	H5N1		$2 \times 10^2$ TCID <sub>50</sub> /mL	
23	H7N9		$2 \times 10^2$ TCID <sub>50</sub> /mL	
24	Influenza B		Yamagata	$2 \times 10^2$ TCID <sub>50</sub> /mL
25		Victoria	$2 \times 10^2$ TCID <sub>50</sub> /mL	
26		Type 68	$2 \times 10^2$ TCID <sub>50</sub> /mL	
27		09/2014 isolate 4	$2 \times 10^2$ TCID <sub>50</sub> /mL	
28		Respiratory syncytial virus	Type A	$2 \times 10^2$ TCID <sub>50</sub> /mL
29	Type B		$2 \times 10^2$ TCID <sub>50</sub> /mL	
30	A16		$2 \times 10^2$ TCID <sub>50</sub> /mL	
31	Rhinovirus		Type 842	$2 \times 10^2$ TCID <sub>50</sub> /mL
32	Chlamydia pneumoniae		TWAR strain TW-183	$5 \times 10^2$ CFU/ml
33	Haemophilus influenzae	NCTC 4560	$5 \times 10^2$ CFU/ml	
34		Bloomington-2	$5 \times 10^2$ CFU/ml	
35		Los Angeles-1	$5 \times 10^2$ CFU/ml	
36		82A3105	$5 \times 10^2$ CFU/ml	
37		K	$5 \times 10^2$ CFU/ml	
38	Mycobacterium tuberculosis	Erdman	$5 \times 10^2$ CFU/ml	
39		HN878	$5 \times 10^2$ CFU/ml	
40		CCDC1551	$5 \times 10^2$ CFU/ml	
41		H37Rv	$5 \times 10^2$ CFU/ml	
42		4752-98 [Maryland (01)68-17]	$5 \times 10^2$ CFU/ml	
43	Streptococcus pneumoniae	178 [Poland 23F-16]	$5 \times 10^2$ CFU/ml	
44		262 [CIP 104340]	$5 \times 10^2$ CFU/ml	
45		Slovakia 14-10 [29055]	$5 \times 10^2$ CFU/ml	
46		Streptococcus pyogenes	Typing strain T1 [NCIB 11841, SF 130]	$5 \times 10^2$ CFU/ml
47		Bordetella pertussis	NCCP 13671	$5 \times 10^2$ CFU/ml
48	Mycoplasma	Mutant 22	$5 \times 10^2$ CFU/ml	

49	pneumoniae	FH strain of Easton Agent [NCTC 10119]	$5 \times 10^2$ CFU/ml
50		M129-B7	$5 \times 10^2$ CFU/ml
51	Pneumocystis jirovecii (PJP)	N/A	N/A
52	Pooled human nasal wash	N/A	N/A
53	Candida albicans	3147	$5 \times 10^2$ CFU/ml
54	Pseudomonas aeruginosa	R. Hugh 813	$5 \times 10^2$ CFU/ml
55	Staphylococcus epidermidis	FDA strain PCI 1200	$5 \times 10^2$ CFU/ml
56	Streptococcus salivarius	S218 [IFO 13956]	$5 \times 10^2$ CFU/ml

**4. Hook Effect:**

There is no hook effect at  $1.0 \times 10^{6.2}$  TCID<sub>50</sub>/mL of SARS-CoV-2 isolated from a SARS-CoV-2 confirmed patient in China.

**5. Clinical Performance:**

Clinical performance of Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold) has been determined by testing 108 positive and 115 negative specimens for SARS-CoV-2 antigen (Ag). The sensitivity is 95.30% (95% CI: 90.79-98.98%), and the specificity is 99.13% (95% CI: 95.25-99.98%).








Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold) Results		PCR Test Results		Total
		Positive	Negative	
		104	1	
	Positive	4	114	118
	Negative	108	115	223
	Total	108	115	223
		Sensitivity	Specificity	Overall Percentage Agreement
		96.30% [90.79%-98.98%]	99.13% [95.25%-99.98%]	97.76% [94.85%-99.27%]

**PRECAUTIONS**

- This kit is for in vitro diagnostic use only. Please read this instruction carefully before the test.
- Please use the swab and sample extraction buffer provided in this kit, and do not replace the sample extract in this kit with components in other kits.
- Operations should strictly follow the instructions.
- Positive and negative predictive values are highly dependent on the prevalence. When the prevalence of the disease is low and SARS-CoV-2 has little/no activity, a positive test results is more likely to represent a false positive result; when the prevalence of the disease is high, false negative test results are more likely.
- Compared with a RT-PCR SARS-CoV-2 assay, this test is less sensitive when used to detect patient samples within the first five days of the onset of symptoms.
- The test cassette must be used within 30 minutes after opening (temperature 10~30°C, humidity ≤70%), it should be used immediately after opening at 30°C, and the unused test cassette must be sealed and dryly stored.
- Waste or excess samples produced during testing should be inactivated according to regulations on infectious agents.

**EXPLANATION FOR IDENTIFICATION**

	Use by date		Batch		Consult instruction for use
	Content Sufficient For <= Tests		Temperature limitation		Catalog Number
	Manufacturing date		Caution		Do not reuse

	CE Marking – IVDD 98/79/EC		Authorized representative in the European Community		Manufacturer
	For In Vitro Diagnostic Use		Keep away from sunlight		Keep dry
	For self-testing	/	/	/	/



Beijing Hotgen Biotech Co., Ltd.  
9th Building, No. 9 Tianfu Street, Biomedical Base,  
Daxing District, Beijing, 102600, P.R. China.



MedNet GmbH  
Borkstrasse 10, 48163 Muenster, Germany



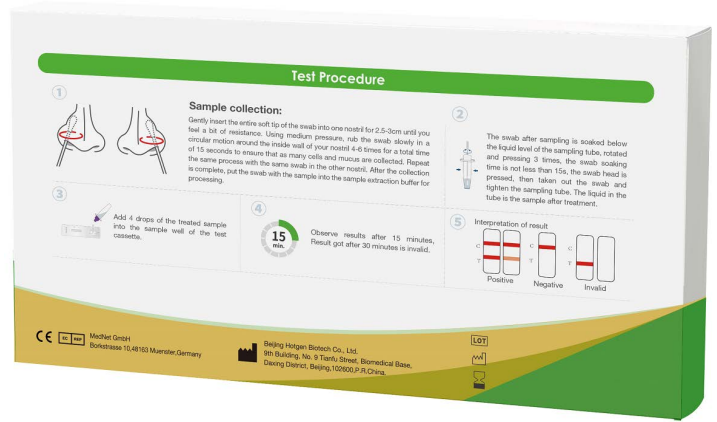
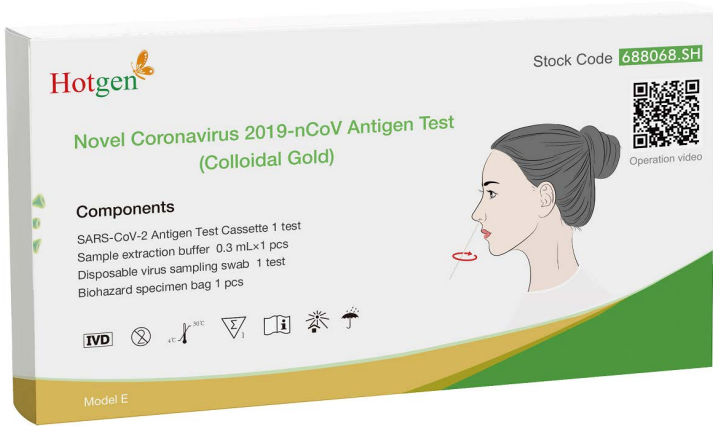
**APPROVAL DATE AND REVISION DATE OF THE INSTRUCTION**

Approved on February, 2021;

Version number: V.2021-02.01[ Eng.]

# Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)

## Product Photos





## 抗原胶体金检测试剂包装信息

### Novel Coronavirus 2019-nCoV Antigen Test(Colloidal Gold) Packing Information

产品名称 Product name	规格/盒 Specifications	单位 Unit	单位包装毛重 Gross weight per unit package
Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)	1T	盒/kit	0.0359 kg/盒 0.0359 kg / kit

### 抗原胶体金试剂盒出口包装箱

#### Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold) Export Packing Cartons

包装箱 / 盒 Packing Carton/ box	长 length cm	宽 Width cm	高 height cm	每箱装盒 数量 Kit quantity per carton	单盒试剂 净重 Net weight of single kit	整箱净重 Net weight of the whole carton	抛重 Throwing weight
纸箱 carton	71	40	39	320盒 320kits	0.0359 公斤 0.0359 kg	11.488公斤 11.488 kg	18.5-19公斤 18.5-19 kg

**Novel Coronavirus 2019-nCoV Antigen Test  
(Colloidal Gold)  
Clinical Study Report**

Subject Product: Novel Coronavirus 2019-nCoV Antigen Test  
(Colloidal Gold)

Test start time: Oct.10 th, 2020

Test completion time: Feb. 03th, 2021

Model specifications: 40T/kit

Submitted by: Beijing Hotgen Biotech Co., Ltd.

Beijing Hotgen Biotech Co., Ltd.

## Summary of Research Report

Clinical trial sponsor	Beijing Hotgen Biotech Co., Ltd.
Clinical trial name	Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)
Clinical trial facility	The Key laboratory of Biological Emergency and Clinical POCT (Beijing)
Purpose of clinical trials	The purpose of this study was to investigate the self-test performance of "Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)" produced by Beijing Hotgen Biotech Co., Ltd. to detect novel coronavirus (2019-nCoV) antigen in human anterior nasal swab specimens.
Clinical trial methods	<p>The subject product of this study is "Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)" (<i>hereinafter referred to as "Antigen Test"</i>) produced by Beijing Hotgen Biotech Co., Ltd. The product selected for the comparison is RT-PCR Kit.</p> <p>Results of the Antigen Test and RT-PCR Test are compared to evaluate the consistency between the Antigen Test and RT-PCR Test. Cases with different test results were comprehensively analyzed by combining the patients' epidemiological background, clinical symptoms, disease outcome, and other information. In this way, the performance of the Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold) (produced by Beijing Hotgen Biotech Co., Ltd) to detect the novel coronavirus (2019-nCoV) antigen in human anterior nasal swab specimens was evaluated.</p> <p>The specimens collection and testing for antigen test were conducted by individuals in non-healthcare settings while the collection and testing of the specimens for RT-PCT were accomplished by the investigators.</p> <p>The anterior nasal swab specimens used for antigen test were prospectively collected. Patients were sequentially and randomly enrolled .All collected specimens can be traced back to the corresponding clinical information, including case number, age, gender, type of specimens, collection time, confirmation or exclusion of the novel coronavirus infection, and the RT-PCR Test results for disease diagnosis.</p>
Test kit name, specifications	Name: Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold) Specification: 40 Tests/Kit;
Sample size	This study enrolled a total of 223 human anterior nasal swab specimens, of which 108 were positives for RT-PCR Test, 115 negatives for RT-PCR Test; As for data collection of the corresponding RT-PCR Test results.
Judgment method	Visual observation
Evaluation method	<p>(1) The total coincidence rate of the diagnosis results of the assessment system and the reference system is greater than 80%.</p> <p>(2) The Kappa value of the consistency between the diagnostic results of the assessment system and the reference system is greater than 0.75.</p>
Results and conclusions	<p>1、 The sensitivity , spesitivity , and accuracy of the diagnostic results of the assessment system and the reference system are:</p> <p>Human anterior nares swab specimens, 96.30%, 99.13%, and 97.76%</p>

		Nucleic Acid Test results		Total
		Positive (+)	Negative (-)	
Antigen Test	Positive (+)	104	1	105
	Negative (-)	4	114	118
Total		108	115	223

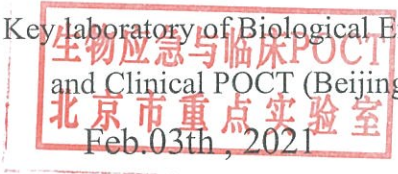
Sensitivity: 96.30% (90.79%~98.98%)  
Specificity: 99.13% (95.25%~99.98%)  
Accuracy: 97.76% (94.85%~99.27%)

2、 The consistency coefficient Kappa result of the diagnostic results between the assessment system and the reference system is below:

Human anterior nares swab specimens: Kappa (K) =0.9551;

In summary, individuals self-test in non-healthcare settings by using the Antigen Test kit , the Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold) produced by Beijing Hotgen Biotech Co., Ltd. to detect human anterior nasal swab specimens, the results showed excellent agreement with the RT-PCR Test results. The comparison test results of human anterior nasal swab specimens are highly consistent. Therefore, the Antigen Test kit has a good self-test performance.

**Verification unit:**

The Key laboratory of Biological Emergency and Clinical POCT (Beijing)  
  
Feb.03th, 2021

Note: The Key laboratory of Biological Emergency and Clinical POCT (Beijing) was jointly declared by Beijing Hotgen Biotech Co.,Ltd and institute of Microbiology of the Academy of Military Medical Sciences. It was announced on the website of the Beijing Municipal science & Technnology Commission on May 30, 2014.

# Sensitivity verification of Novel Coronavirus 2019-nCoV

## Antigen Test (Colloidal Gold)

### Purpose

Use inactivated new coronavirus to evaluate the sensitivity of Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)

### Experimental Materials

1. 1 batch of colloidal gold test paper;
2. Inactivated virus:  $10^5$  pfu/mL.

### Experimental steps

Sample: Mixing ratio of sample diluent

Concentration number	Virus content in sample (pfu/mL)	Sample: Mixing ratio of sample diluent
1	0	1: 9
2	$10^2$	1: 9
3	$2.5 \times 10^2$	1: 9
4	$5 \times 10^2$	1: 9
5	$10^3$	1: 9
6	$10^4$	1: 9

1. After mixing the sample and diluent, incubate at room temperature for 1 min.
2. Take 100 $\mu$ L of sample and observe the result after 15min reaction.

### Test results

Concentration number	Virus content in sample (pfu/mL)	Sample: Mixing ratio of sample diluent	Result
1	0	1: 9	-
2	$10^2$	1: 9	$\pm$
3	$2.5 \times 10^2$	1: 9	+
4	$5 \times 10^2$	1: 9	+
5	$10^3$	1: 9	++
6	$10^4$	1: 9	+++

### In conclusion

Colloidal gold experiment results:  $10^2$  pfu/mL has a shallow band, negative without background, the sensitivity is  $2.5 \times 10^2$  pfu/mL.

The Key laboratory of Biological Emergency  
and Clinical POCT (Beijing)  
Aug. 17th, 2020



中国认可  
检验  
INSPECTION  
CNAS IB0126

page 1 of 3 Pages

# 空运货物运输条件识别报告书

## Certificate for Safe Transport of Air Cargo



证书编号: BN2009720700750002

物品名称: 新型冠状病毒(2019nCoV)抗原检测试剂盒(胶体金法)

Name of Goods: NOVEL CORONAVIRUS 2019-nCoV ANTIGEN TEST (COLLOIDAL GOLD)

签发日期: 2020-09-23

委托单位: 北京热景生物技术股份有限公司

Applicant:

### 北京信诺递捷运输咨询有限公司

SINO-Dangerous Goods Transportation Consultant Ltd.

电话: 010-64589142

网 址: [www.chinasdg.cn](http://www.chinasdg.cn)

传真: 010-64580462

E-mail: [public@chinasdg.cn](mailto:public@chinasdg.cn)

地址: 北京市顺义区北京空港物流基地物流园八街九号林吉大厦B505室

邮编: 101300



Product Service

# Certificate

No. Q5 089675 0005 Rev. 01

**Holder of Certificate:** **Beijing Hotgen Biotech Co.,Ltd**  
9th Building, No. 9 Tianfu Street, Biomedical Base  
Daxing District  
102600 Beijing  
PEOPLE'S REPUBLIC OF CHINA

**Facility(ies):** Beijing Hotgen Biotech Co.,Ltd  
9th Building, No. 9 Tianfu Street, Biomedical Base, Daxing District,  
102600 Beijing, PEOPLE'S REPUBLIC OF CHINA

**Certification Mark:**



**Scope of Certificate:** Design and Development, Production, Distribution and Service of Automated Immunoassay Analyzer, Up-converting Phosphor Immunoassay Analyzer, Up-converting Phosphor Technology Test Kits, Colloidal Gold Test Kits, Chemiluminescence Immunoassay Test Kits, Enzyme-Linked Immunoassay Test Kits.

**Applied Standard(s):** EN ISO 13485:2016  
Medical devices - Quality management systems - Requirements for regulatory purposes (ISO 13485:2016)  
DIN EN ISO 13485:2016

The Certification Body of TÜV SÜD Product Service GmbH certifies that the company mentioned above has established and is maintaining a quality management system, which meets the requirements of the listed standard(s). All applicable requirements of the testing and certification regulation of TÜV SÜD Group have to be complied with. For details and certificate validity see: [www.tuvsud.com/ps-cert?q=cert:Q5 089675 0005 Rev. 01](http://www.tuvsud.com/ps-cert?q=cert:Q5_089675_0005_Rev_01)

<b>Report No.:</b>	BJ20071201
<b>Valid from:</b>	2020-12-05
<b>Valid until:</b>	2023-12-04

Date, 2020-09-01

Christoph Dicks  
Head of Certification/Notified Body

# 对外贸易经营者备案登记表

备案登记表编号: 01716790

统一社会信用代码: 91110115777090586H  
进出口企业代码: \_\_\_\_\_

经营者中文名称	北京热景生物技术股份有限公司		
经营者英文名称	Beijing Hotgen Biotech Co.,Ltd.		
组织机构代码	_____	经营者类型 (由备案登记机关填写)	股份有限公司
住 所	北京市大兴区中关村科技园区大兴生物医药产业基地天富街9号9幢		
经营场所 (中文)	北京市大兴区中关村科技园区大兴生物医药产业基地天富街9号9幢		
经营场所 (英文)	9th Building, No.9 Tianfu St. Biomedical Base, Daxing, District, Beijing, China		
联系电话	010-56528860	联系传真	010-56528861
邮政编码	102600	电子邮箱	li.han@hotgen.com.cn
工商登记注册日期	2005-6-23	工商登记注册号	_____

依法办理工商登记的企业还须填写以下内容

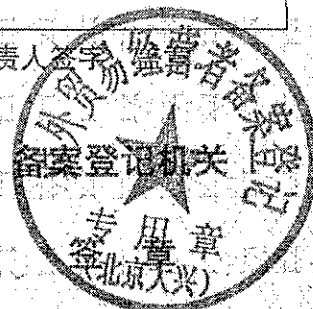
企业法定代表人姓名	林长青	有效证件号	352202197609261014
注册资金	肆仟伍佰万元		(折美元)

依法办理工商登记的外国(地区)企业或个体工商户(独资经营者)还须填写以下内容

企业法定代表人/ 个体工商户负责人姓名		有效证件号	
企业资产/个人财产			(折美元)

备注 地址、变更, 原证号01224263 名称、经营者类型、注册资金变更 原证号01224414	
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填表前请认真阅读背面的条款, 并由企业法定代表人或个体工商户负责人签字



2016 年 07 月 29 日



# 医疗器械生产许可证

许可证编号：京食药监械生产许20070010号

企业名称：北京热景生物技术股份有限公司

生产地址：北京市大兴区中关村科技园区大兴生物医药  
产业基地天富街9号9幢

法定代表人：林长青

生产范围：

2002版分类目录：II类：II-6840-3免疫分析系  
统，II-6840体外诊断试剂 III类：III-684  
0-3免疫分析系统，III-6840体外诊断试剂\*\*\*

企业负责人：林长青

2017版分类目录：II类：II-22-04免疫分析设备  
III类：III-22-15检验及其他辅助设备\*\*\*

住 所：北京市大兴区中关村科技园区大兴生物医药  
产业基地天富街9号9幢

发证部门：



有效期限：至 2024 年 08 月 15 日

发证日期：2020 年 01 月 10 日

国家药品监督管理局制

印刷流水号NO: 0004196

