



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



Beijing Hotgen Biotech Co., Ltd.

# 目录

# (Contents)

1,	产品彩页 (Product Brochure)	1-2
2,	公司介绍 (Company Profile)	3
3、	CE 申明 (Declaration of Conformity)	4
4、	说明书 (Instructions for Use)	5-6
5、	产品照片 (Product Photos)	7
6,	包装信息 (Packing Information)	8
7、	临床验证报告 (Clinical Trial Summary Report)	9-12
8,	检测灵敏度 (The Sensitivity of Test)	13
9,	航空鉴定书 (Certification for Safe Transport of Chemical Goods)	14
10	、ISO13485 认证 (ISO13485 Certificate)	15
11.	、企业资质(Enterprise Qualification)	16-18



# 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: Nasopharyngeal swab, Throat Swab
  - Detect the presence of viral proteins
    - Identify acute or early infection •
    - The sensitivity is 2.5×10<sup>2</sup> pfu/mL •

## **Clinical Performance**

(Disease Course 5-7 Days)

Sensitivity: 95.65%; Specificity: 99.02%; Accuracy: 97.89%.

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

### **Sample Collection**



Nasopharyngeal swab: The sampler holds the swab to enter the nostril, and when the tip of the swab reaches the back wall of the nasopharyngeal cavity, gently rotate it for a circle, and then slowly take out the swab.



**Throat Swab:** The swab crosses the base of the tongue, and wipes the tonsils back and forth with slight force on both sides of the person being collected for at least 3 times, and then wipes up and down the posterior pharyngeal wall at least 3 times.

#### **Test Procedure**



The swab after sampling is soaked below the liquid level of the sampling tube, rotated and pressing 3 times, the swab soaking time is not less than 15s, the swab head is pressed, then taken out the swab and tighten the sampling tube. The liquid in the tube is the sample after treatment.

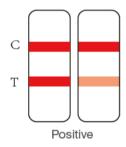


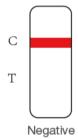
Add 4-5 drops of the treated sample into the sample well of the test cassette.

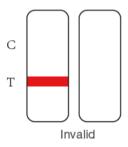


Observe results after 15 mintes, result got after 30 minutes is invalid.

## Interpretation of result







#### **Clinical Performance**

A total of 617 nasal swab samples were tested in this test, and the results of throat swabs samples were analyzed statistically. The collecting time of patient samples is not exceeding 7 days after clinical manifestations with a novel coronavirus infection in clinical institutions.

Assessment system	Reference syst	em (clinical diagno	stic results)
Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)	Positive(+)	Negative(-)	Total
Positive(+)	198	4	202
Negative(-)	9	406	415
Total	207	410	617

Sensitivity: 95.65%; Specificity: 99.02%; Accuracy: 97.89%.

#### **Product information**

Product name	Test samples	Specifications	Storage conditions
Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)	Nasopharyngeal swab , Throat Swab	1T/kit, 5T/kit, 20T/kit, 40T/kit	4-30℃

Website: www.hotgen.com.cn

# **Company Profile**

Beijing Hotgen Biotechn 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 serval 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:

#### 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

CE

Signature: Lin Change

Name: Lin Changqing

Title: General manager

Place: Beijing, China.

Date of Issue: Aug 27, 2020





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

#### **PRODUCT NAME**

Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)

#### **SPECIFICATIONS**

1T/bag, 5T/kit, 20T/kit, 40T/kit

#### INTENDED USE

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.

A positive test result indicates that the samples contained novel coronavirus antigen. A negative test result does not rule out the possibility of infection.

This product is only used for clinical and emergency reserve during the pneumonia outbreak of new coronavirus infection, and can not be used as a routine in vitro diagnostic reagent for clinical application. 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.

#### PRINCIPLE OF THE ASSAY

This kit is based on the Colloidal gold immunochromatographic technology, and uses double antibody sandwich method to detect the novel coronavirus antigen in human throat swabs or nasal swabs. The detection line (T line) of the novel coronavirus antigen test cassette was coated with novel coronavirus antibody, and the quality control line (C line) was coated with sheep anti-mouse. During the test, the sample is dropped into the test cassette and the liquid is chromatographed upward under the capillary effect. The novel coronavirus antigen in the sample first binds to the Colloidal gold-labelled novel coronavirus antibody to form a solid phase novel coronavirus antibody-novel coronavirus antigen-labelled novel coronavirus antibody-Colloidal gold complex at the T line position, and form a solid phase sheep anti-mouse-labelled novel coronavirus 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 novel coronavirus antigen in nasal swabs or throat swabs.

#### **COMPONENTS**

1.Novel Coronavirus Antigen Test Cassette 2.Sample extraction buffer 3.Disposable virus sampling swab

#### STORAGE AND SHELF LIFE

- 1. The kit should be stored at  $4\sim 30$  C, the shelf life is set for 18 months.
- 2. After the foil bag is opened, it should be used within 30 minutes (temperature 10~30°C, humidity ≤70%), and it should be used immediately after opening at 30°C.
- 3. The sample extraction buffer should be used within 18 months after opening (temperature 10~30°C, humidity
- Date of manufacture and expiration date see label.

#### SPECIMEN REQUIREMENTS

#### 1. Sample collection:

Nasal swab: The sampling staff hold a swab and stick into the nostril and goes back slowly along the bottom of the 5 lower nasal canal, when the top of the swab reaches the posterior wall of the nasopharyngeal cavity, rotate gently for a

cycle (if reflex cough, stay for a moment), and then slowly remove the swab.

Throat swab: Let the patient's head tilt slightly, mouth open, and make "ah" sounds, exposing the pharyngeal tonsils on both sides. Hold the swab and wipe the pharyngeal tonsils on both sides of the patient with a little force back and forth at least 3 times. Then wipe up and down the Posterior pharyngeal wall at least 3 times.

#### 2. Sample treatment

The swab after sampling is soaked below the liquid level of the sampling tube, rotated and pressing 3 times, the swab soaking time is not less than 15s, the swab head is pressed, then taken out the swab and tighten the sampling tube. The liquid in the tube is the sample after treatment.

#### 3. Sample preservation

The sample of treated should be tested within 1h. Specimens that can not be detected within 24 hours should be kept at -70°C or below. Repeated freezing and thawing should be avoided during specimen transportation. Specimen collection should be sent to the laboratory as soon as possible. If it is necessary to transport the specimen for a long distance, it is recommended to preserve the specimen by refrigeration such as dry ice.

#### TEST PROCEDURE

- 1. Place the test cassette, sample extraction buffer at room temperature for 15~30 minutes, and equilibrate to room temperature ( $10\sim30^{\circ}$ C).
- 2. Open the aluminum foil pouch of the test cassette, place the test cassette on a flat surface.
- 3. Write sample ID on the plastic case of the test cassette.
- 4. Add 4~5 drops of the treated sample into the sample well of the test cassette. Incubate at 10~30°C for 15 minutes.
- 5. Observe the results after Incubate at 10~30°C for 15 minutes. Result got after 30 minutes is invalid.

This kit doesn't have quality control products. It is recommended that the users establish a quality control method suitable for its laboratory.

#### INTERPRETATION OF RESULT

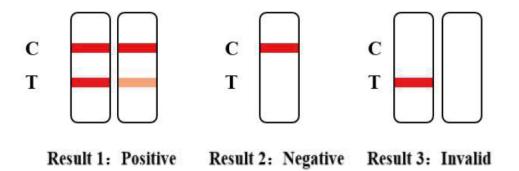
**Positive:** Two color bands appear in the observation window, that is, a red or magenta line appears at the position of the quality control line (C line) and the detection line (T line) (as shown in result 1), which indicates the test result of novel coronavirus antibody in the sample was positive.

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 results of the novel coronavirus antibodies in the sample were negative or the concentration was 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), which indicates that the test is invalid, should collect sample again and retest.







#### LIMITATIONS

- 1. This kit is a qualitative test and cannot quantify the concentration of the novel coronavirus antigen.
- The test result of this kit is not the only confirmation indicator of clinical indications. If the test result is not in consistent with clinical evidence, it is recommended to conduct supplementary tests to verify the result.
- Sample test results are related to the quality of sample collection, processing, transportation and storage. Any errors may cause inaccurate test results. If cross-contamination is not controlled during sample processing, false positive results may occur.

#### PERFORMANCE CHARACTERISTICS

- 1. When testing with enterprise references, meet the following standards:
- 1.1 Negative references compliance rate: Use the enterprise negative references for testing, and the negative references should be detected at least 20/20 (-/-).
- 1.2 Positive references compliance rate: Use the enterprise positive references for testing, and the positive references should be detected at least 5/5 (+/+).
- 1.3 Sensitivity references: When using enterprise sensitivity references for detection, at least 1/3 (+ / +) should be detected.
- 1.4 Repeatability: Use enterprise precision references for testing, and the test results of repeatable references should be consistent.

#### PRECAUTIONS

- This kit is for in vitro diagnostic use only. Please read this instruction carefully before experiment.
- Please use the swab and sample extraction buffer provided by this kit, Do not replace the sample extract in this kit with components in other kits.
- 3. Operation should be strictly performed according to the instruction, and different batches should not be mixed use.
- The user should test the specimen as soon as possible, and the clinical performance evaluation of frozen sample may be different from that of fresh sample.
- 5. Positive and negative predictive values are highly dependent on prevalence rates. Positive test results are more likely to represent false positive results during periods of little/no SARS-CoV-2 activity when disease prevalence is low. False negative test results are more likely when prevalence of disease caused by SARS-CoV-2 is high.
- Sensitivity of the test after the first five days of the onset of symptoms has been demonstrated to decrease as compared to a RT-PCR SARS-CoV-2 assay.
- 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.

8. Waste or excess samples produced during testing should be inactivated according to infectious agents.

#### EXPLANATION FOR IDENTIFICATION

$\Box$	Use by date	LOT	Batch	[]i	Consult Instruction for use
Σ	Content Sufficient For <n> Tests</n>	*	Temperature limitation	REF	Catalog Number
Д.	Manufacturing date	$\triangle$	Caution	(3)	Do not reuse
C€	CE Marking – IVDD 98/79/EC	EC REP	Authorized representative in the European Community	***	Manufacturer
IVD	For In Vitro Diagnostic Use	1	/	/	/

#### REFERENCES

- Li M, Jin R, Peng Y, et al. Generation of antibodies against COVID-19 virus for development of diagnostic tools
   I medRxiv. https://doi. org/10. 1101/2020. 02. 20. 20025999.
- [2] Diagnosis and Treatment Protocol for Novel Coronavirus Pneumonia (Trial Version VII), National Health Office Medical Letter [2020] No.184, 2020.3.3.
- [3] Laboratory Biosafety Guidance Related to Coronavirus Disease (COVID-19) (Edition II), National Health Office Science and Education Letter [2020] No. 70, 2020.1.23.
- [4] Technical Guidelines for COVID-19 Laboratory Testing (Edition IV), National Health Office's Disease Control Letter [2020] No.109, 2020.02.07.



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









# 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)

(Colloidal Gold)

### **Packing Information**

产品名称	规格/盒	单位	单位包装毛重
Product name	Specifications	Unit	Gross weight per
			unit package
Novel Coronavirus	1T	盒/kit	0.039kg/盒
2019-nCoV Antigen			0.039kg / kit
Test(Colloidal Gold)	20T	盒/kit	0.884 kg/盒
			0.884 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

						`	,		
	Export Packing Cartons								
包装箱/	长	宽	高	规格	每箱装盒	单盒试剂	整箱净重	抛重	
盒	length	Width	height		数 量 Kit	净重	Net	Throwing	
Packing	cm	cm	cm	Specifi	quantity	Net weight of	weight of	weight	
Carton/				cation	per carton	single kit	the whole		
box				S			carton		
纸箱	70.5	40	39	1T	320 盒	0.039 公斤	12.48 公斤	18.5-19	
carton					320 kits	0.039kg	12.48 kg	公斤/kg	
纸箱	70.5	40	39	20T	16 盒	0.884 公斤	14.14 公斤	18.5 - 19	
carton					16 kits	0.884 kg	14.14 kg	公斤/kg	

# Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold) Clinical Trial Summary Report

Research product name: Novel Coronavirus 2019-nCoV

Antigen Test (Colloidal Gold)

Test start time: May 6th,2020

Test completion time: Aug.13th,2020

Model specifications: 40T/kit

Medical institutions undertaking clinical trials:

Fifth Medical Center of General Hospital of Chinese People's

Liberation Army

The Sixth People's Hospital of Shenyang

Institute of Microbiology and Epidemiology, Academy of Military

**Medical Sciences** 

Peking Union Medical College Hospital, Chinese Academy of

**Medical Sciences** 

PLA Third Medical Center

Applicant: Beijing Hotgen Biotech Co., Ltd. Reporting time: Aug.17th,2020

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)
	Fifth Medical Center of General Hospital of Chinese People's Liberation Army, The Sixth People's Hospital of Shenyang, Institute of Microbiology and Epidemiology Academy of
Clinical trial facility	Military Medical Sciences, Peking Union Medical College Hospital Chinese Academy of Medical Sciences, PLA Third Medical Center
Purpose of clinical trials	Examine the clinical performance of the Novel Coronavirus 2019-nCoV  Antigen Test (Colloidal Gold) for the detection of novel coronavirus 2019-nCoV antigen in human nasal swabs or throat swabs.
Clinical trial methods	In this clinical trial, the diagnostic criteria for the diagnosis of Coronavirus disease (COVID-19) infection and the results of the disease process (real-time fluorescent RT-PCR detection of novel coronavirus 2019-nCoV nucleic acid results, virus gene sequencing comparison) were selected as comparative methods for comparative research. Test results on clinical case samples. Statistics and calculation of the detection coincidence rate of the two. The differential samples should be fully analyzed in combination with the patient's epidemiological background, clinical symptoms, and disease outcomes to assess the Novel Coronavirus 2019-nCoV  Antigen Test (Colloidal Gold) produced by Beijing Hotgen Biotech Co., Ltd. is used to qualitatively test the clinical performance of the novel coronavirus 2019-nCoV antigen in human nasal swabs or throat swabs.
Test kit name,	Name: Novel Coronavirus 2019-nCoV Antigen Test (Colloidal Gold)
specifications, batch	Specification: 40 Tests/Kit;
number	Lot number: W2020040300
Sample size	The total number of nasal swabs samples was 207 cases of NDV positive samples and 410 cases of NDV negative samples; The total number of throat swabs samples was 201 cases of NDV positive samples and 402 cases of NDV negative samples; Negative nasal swabs samples included 10 cases of HBsAg positive, 7 cases of HCV positive, 2 cases of HIV positive, 6 cases of abnormal liver function, 7 cases of abnormal renal function, 3

	respiratory trassamples inclusions as samples inclusions and the constitute, 5 cases of abnormal larger, Fever, uppose attention and the consistency by the consisten	net infection, valued 9 cases of abnormal blood glucose er respiratory nosis results of the petween the diager than 0.75.	f HBsAg positive fliver function, 6 ce, influenza A, influenza A, influenza A, influenza B, tract infection,	hosis, brucellosis, , 6 cases of HCV cases of abnormal influenza B, and , viral hepatitis, system and the				
egative throat swabs re, 2 cases of HIV por function, 3 cases of plasma pneumoniae, sis, brucellosis, etc. observation e total coincidence ra nce system is greater e Kappa value of the n and the reference system is greater e sensitivity, spesition	asamples inclusionsitive, 5 cases of abnormal late, Fever, upper attention of the diagram of than 80%. The consistency by the system is greated ivity, and accurate of the diagram of the	s of abnormal blood glucose er respiratory nosis results of between the diager than 0.75.	f HBsAg positive liver function, 6 c , influenza A, i  tract infection,  f the assessment s  agnostic results of	e, 6 cases of HCV cases of abnormal influenza B, and the system and the				
re, 2 cases of HIV por function, 3 cases of plasma pneumoniae, sis, brucellosis, etc. observation e total coincidence rance system is greater the Kappa value of the mand the reference system is and the reference system is greater	ate of the diagram than 80%.  e consistency by ystem is greated ivity, and accuracy accuracy and accuracy and accuracy and accuracy and accuracy and	s of abnormal blood glucose er respiratory nosis results of the diager than 0.75.	liver function, 6 c., influenza A, is tract infection,	cases of abnormal influenza B, and , viral hepatitis, system and the				
function, 3 cases of plasma pneumoniae, sis, brucellosis, etc.  observation  e total coincidence rance system is greater e Kappa value of the and the reference system is greater and the reference system and the reference	ate of the diagrate consistency by ystem is greated ivity, and accurate of abnormal by the consistency by th	blood glucose er respiratory nosis results o between the diager than 0.75.	f the assessment s	system and the				
observation e total coincidence rance system is greater e Kappa value of the and the reference system is and the reference system is greater	ate of the diagrate of than 80%. c consistency bystem is greate ivity, and accurate	nosis results on the diagram of the	f the assessment s	system and the				
observation e total coincidence rance system is greater e Kappa value of the and the reference system is greater e sensitivity, spesition and the reference system	ate of the diagram than 80%.  The consistency by the consistency by the consistency by the consistency of the consistency by th	nosis results on the diaser than 0.75.	f the assessment s	system and the  f the assessment				
observation e total coincidence rance system is greater e Kappa value of the and the reference system is greater e sensitivity, spesition and the reference system is greater	than 80%. consistency bystem is greated ivity, and accurate	petween the dia er than 0.75.	agnostic results of	f the assessment				
e total coincidence rance system is greater e Kappa value of the and the reference system and the reference system and the reference system and the reference system.	than 80%. consistency bystem is greated ivity, and accurate	petween the dia er than 0.75.	agnostic results of	f the assessment				
e Kappa value of the and the reference syle sensitivity, spesition and the reference syle and the syle and the reference syle and the ref	than 80%. consistency bystem is greated ivity, and accurate	petween the dia er than 0.75.	agnostic results of	f the assessment				
e Kappa value of the and the reference sylves sensitivity, spesition and the reference sylves	e consistency by ystem is greate ivity, and accuracy	er than 0.75.						
e sensitivity, spesiti	ystem is greate	er than 0.75.						
e sensitivity, spesiti	ivity, and accu		agnostic results of	f the assessment				
and the reference sy	-	uracy of the dia	agnostic results of	f the assessment				
	ystem are:							
	•		system and the reference system are:					
	Nasal swabs samples, 95.65%, 99.02%, and 97.89%							
Throat swabs samples,96.02%,98.51%,97.69%								
(1) human nasal swabs								
•	<del>-</del>			·				
		Positive (+)	Negative (—)	Total				
· · · · · · · · · · · · · · · · · · ·	, ora)							
Positive (+)			4	202				
		-		415				
		207	410	617				
sitivity: 99.02% uracy: 97.89%	sis with a total	compliance ra	te of 95%:					
ompliance 95%	confidence int	terval						
96.42	2%		98.87%					
	man nasal swabs ssment system el Coronavirus 2019- gen Test (Colloidal Colive (+) tive (-) sitivity: 95.65% sitivity: 99.02% uracy: 97.89% dence interval analys ompliance 95%	man nasal swabs ssment system el Coronavirus 2019-nCoV gen Test (Colloidal Gold)  ive (+) tive (—)  sitivity: 95.65% sitivity: 99.02% uracy: 97.89% dence interval analysis with a total ompliance  95% confidence interval	man nasal swabs  Sesment system  Positive (+)  gen Test (Colloidal Gold)  ive (+)  tive (-)  207  Sitivity: 95.65%  sitivity: 99.02%  uracy: 97.89%  dence interval analysis with a total compliance ray  ompliance  95% confidence interval	man nasal swabs  Sesment system  Positive (+)  Reference system (clinical diagrams)  Positive (+)  Negative (-)  Positive (+)  Negative (-)  Negative (-)  198  4  4  4  4  406  207  410  Sitivity: 95.65%  Sitivity: 99.02%  Positive (+)  198  4  4  4  4  4  4  4  4  4  4  4  4  4				

	(2) human throat swa	ıbs			
*	Assessment system		Reference sys	tem (clinical diag	gnostic results)
	Novel Coronavirus Antigen Test (Collo		Positive (+)	Negative(—)	Total
	Positive (+)		199	14	213
	Negative (—)	-	2	388	390
	Total		201	402	603
	Sensitivity: 96.02 Spesitivity: 98.51 Accuracy: 97.68% Confidence interval a	%	otal compliance	rate of 95%:	
	Total compliance 95% confidence		e interval		
	97.68%	96.14%		98.72%	
	2. The consistency of assessment system and Nasal swabs samples: Throat swabs samples: The assessment system coronavirus 2019-nCoronavirus	ad the reference  : Kappa (K) =  s:Kappa (K) =  m can meet the  oV antigen, and	system is below 0.9416; =0.9476; current needs of can be used to q	clinical detection	n of the novel ct the content of
Verification unit:	The Key laboratory of Biological Emergency and Clinical POCT (Beijing)  Aug. 17th, 2020				

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: 105 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 <sup>2</sup>	1: 9
3	$2.5 \times 10^{2}$	1: 9
4	5×10 <sup>2</sup>	1: 9
5	10 <sup>3</sup>	1: 9
6	104	1: 9

- 1. After mixing the sample and diluent, incubate at room temperature for 1 min.
- 2. Take 100µL 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
number	sample (pru/mL)	sample undent	
1	0	1: 9	#
2	10 <sup>2</sup>	1: 9	<u>+</u>
3	$2.5 \times 10^{2}$	1: 9	+
4	5×10 <sup>2</sup>	1: 9	+
5	103	1: 9	++
6	104	1: 9	+++

#### In conclusion

Colloidal gold experiment results: 10<sup>2</sup> pfu/mL has a shallow band, negative without background, the sensitivity is 2.5×10<sup>2</sup> pfu/mL.

The Key laboratory of Biological Emergency and Clinical POCT (Beijing)

Aug. 17th, 2020





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

洪:

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

传真: 010 64580462

E mail: 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







# Certificate

No. Q5 089675 0005 Rev. 00

**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

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, 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). See also notes overleaf.

Report No.:

BJ18712021

Valid from:

2018-11-14

Valid until:

2020-12-04

Date,

2018-11-14

Stefan Preiß

1. Pumil

# 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: 进出口企业代码 91110115777090586H

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)	5 股份有限公司			
住 所	北京市大兴区中 街9号9幢	关村科技园区大兴生物医药产业基地天富				
经营场所 (中文)	北京市大兴区中关	业基地天富街9号9幢				
经营场所(英文)	9th Building, No.9 1 China	Fianfu St. Biomedical Base,D	axing District, Beijing.			
联系电话		联系持真	010-56528861			
邮政编码	102600	电子邮租	li.han@hotgen.com.cn			
工商登记注册日期	2005-6-23	江南草记注册号	MAN TEN			

# 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	肆任伍佰万元	55/2	(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

# 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: ||类: ||-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\*\*\*

2017版分类目录: II类: II-22-04免疫分析设备 Ⅲ类。Ⅲ类2.15检验及其他辅助设备\*\*\*

企业负责人: 林长青

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 发证日期:

2020 年 01 月

印刷流水号NO: 0004196

91110115777090586H 绕 社 SK 司 馬 东 印

画

备案、许可、监 信息公示系统" 扫描二维码登录

了解更多登记、

"国家企业信用

串 资 本 6219.6341万元

患 凝 2005年06月23日至 长期

Ш

惠

2005年06月23日

裕

叫

范

1

法

子

代表人

米

世

股份有限公司(上市、自然人投资或控股)

分

称

北京热景生物技术股份有限公司

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

国 技术开发、技术转让、技术服务、技术咨询;货物进出口;技术进出口;代理进出口;租赁、维修医疗器械;销售医疗器械(II类);软件开发;健康咨询(须经审批的诊疗活动除外);生产第二类、第三类医疗器械;销售食品;销售第三类医疗器械。(企业依法自主选择经营项目,开展经营活动;生产第二类、第三类医疗器械、销售食品、销售第三类医疗器械以及依法须经批准的项目,经相关部门批准后依批准的内容开展经营活动;不得从事本市产业政策禁止和限制类项目的经营活动。)

鄉 沾 也 美

