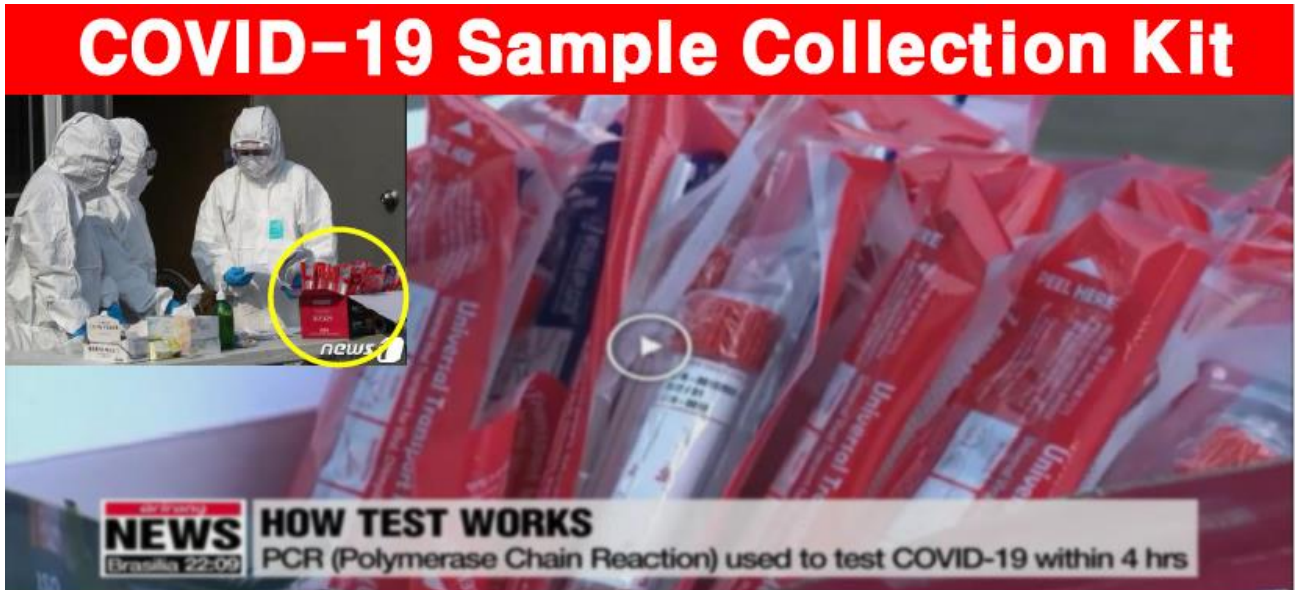


Product Line for Covid19

Product line for COVID19

- 1. Sample Collection & Transportation Kit**
- 2. Extraction Kit**
- 3. PCR Test Kit - I**
- 4. PCR Test Kit - II**
- 5. Air Doctor(Virus Blocker, Non-Medical)**

1. COVID19 Sample Collection & Transportation Kit



※ What is COVID-19 Sample Collection Kit?

This kit is called UTM(Universal Transport Medium). UTM is intended for the collection and transport of clinical specimens containing Corona Virus and others.

※ How to use it?



[Fig. 1] Peel open the sealed pouch pack.

[Fig.2] Remove one swab from the pouch and collect the specimen without bending the swab.

[Fig.3] Aseptically remove the cap from the vial and insert the swab into the tube containing medium.

Break the swab shaft by bending the swab.

[Fig.4] Replace the cap and secure the lid tight and record the patient's information on the label.

2. Specifications & Photos

COVID-19 Universal/Viral Sample Collection Kit(UTM, VTM)		
1	Product Name	Viral Sample Collection & Transport Kit
2	Model Number	UTNFS-3B-2
3	Product Description	Viral Sample Collection Kit - Nasopharyngeal Swab + Oropharyngeal Swab + 2ml buffer
4	Packing	50ea/Inner box. 10 inner box/Carton Box, 500kits/CTN Inner Box Size : 25.7cm x 22cm x 13.5cm Carton Box Size : 54cm x 46cm x 37cm, 10.8 kg
5	Features	Supplied more than 700,000kits to KCDC(Korea Centers for Disease Control and Prevention) Complying with CDC's recommendation - Specimens should be collected from 2 sites(Nasal & oropharyngeal) - Swabs is made of Nylon(thre are many false negative cases with cotton swabs)
6	Class	Medical Device Class II -You have to check your regulation to import it without registration

7	Photos	
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3. References

- Supplying 700,000Kit to Korea CDC
- Supplying with Seegene PCR Kit in package
- Supplying to All Korean PCR Kits as package
- Donation through Governments
- Exporting over 50 Countries
- Complying with CDC's recommendation
- Complying with WHO's recommendation



4. Extraction Instruments & Kit

Nextractor[®] NX-48

Automated DNA/RNA Extractor



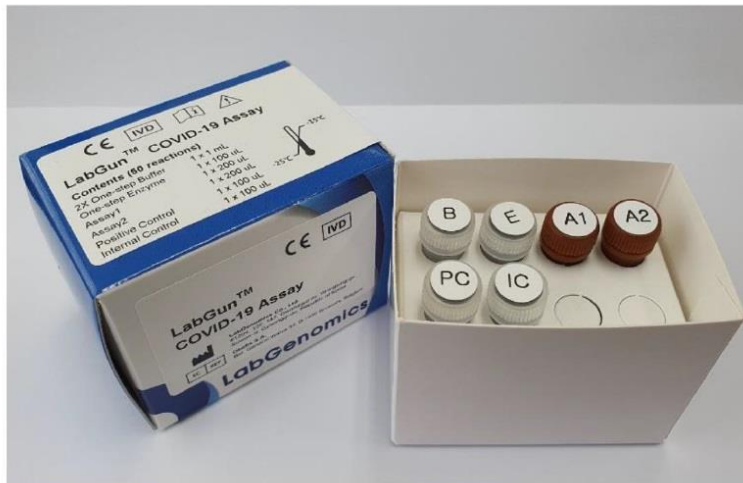
1,200 \$
146만원



	 Magna Pure	 Qia-symphony	 Smart Lab Assist-32	 Nextractor [®]
No/hour	96/1hour	96/3hour	32/40min	48/10min
Price – Equip.	\$100,000~\$150,000	\$100,000~\$120,000	\$30,000	\$20,000
Price – Reagent	\$6~8/test	\$5~6/test	\$4~5/test	\$3/test
Feature	추출	추출+PCR setup	추출	추출

5. PCR Kit – I LabGenomics

1. We can supply 500,000 kits per week.
2. The first shipment can be delivered to your designated address within a week from your purchase.
3. We can increase the kit quantity up to 5 million per month.
4. Our kits are approved by Korean government and CE certified.
5. The kits are in preparation of FDA EUA (Emergency Use Authorization).
6. We have proven record of the test result accuracy of 99.9%.
7. Results come in as short as 6 hours.
8. The kit is one of the proven products which diagnosed currently 20,000 people per day in South Korea.



6. Specifications & Thermal Cycler Capability

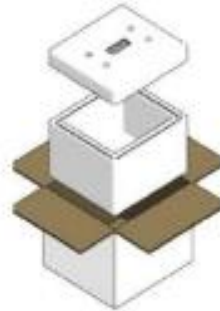
Application	Real-time Reverse-transcription PCR test for detection of SARS-CoV-2 coronavirus (COVID-19) gene <i>RdRp</i>
Limit of Detection	1 X 10 ² copies/reaction
Sensitivity*	99.9%
Specificity*	99.9%
Types of samples	<ul style="list-style-type: none">• Sputum, bronchoalveolar lavage (BAL), tracheal aspirate (lower respiratory tract)• Nasopharyngeal and oropharyngeal fluids, nasal swab (upper respiratory tract)
Thermocycler Run Time	2.5 hours

- Real-time PCR CFX96™ (Bio-Rad)
- Applied Biosystems™ 7500 Real-time PCR Instrument system (Thermo Fisher Scientific)
- Applied Biosystems™ 7500 Fast Real-time PCR Instrument system (Thermo Fisher Scientific)



7. Certificates & Packing

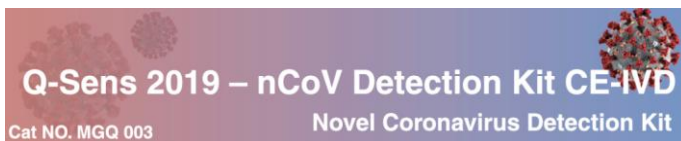
- Korean Ministry of Food and Drug Safety
 - EUA (Emergency Use Athorization)
 - CFS (Certificate of Free Sale)
- CE marking approval
- In preparation of FDA EUA (Emergency Use Athorization)



- Dry Ice Packing (-20 °C temperature condition)
- [3,000T case] : 1 box (395 x 395 x 455 mm) → 16 Liter
- [5,000T case] : 1 box (575 x 518 x 455 mm) → 45 Liter
- [50,000T case] : 2 boxes (641 x 552 x 742 mm) → 123 Liter

8. PCR Kit – II CancerRop

The new strain of coronavirus (**COVID-19**) is a virus that causes the Chinese Wuhan Pneumonia (infection from new strain of coronavirus) that began in December 2019, and is one of seven coronaviruses that can infect humans. It was named “2019-nCoV” because the first human infection was confirmed in late 2019. After obtaining and analyzing the gene base sequence of the new coronavirus, it was found to have the highest homology (89.1%) with the coronavirus carried by bats. In addition, the homology with the other four human coronaviruses was low (39-43%), and showed 50% with MERS, and 77.5% with SARS. Coronaviruses are classified into four genera of alpha, beta, gamma, and delta. The new coronavirus belongs to the beta group and its symptoms include fever and cough, phlegm, shortness of breath, and acute pneumonia, which causes death. The Q-Sens 2019-nCoV Detection Kit is a one-step Real-time RT-PCR Kit that can specifically detect the new strain of the coronavirus. It includes gene-specific probes and primers, all reagents required for real-time RT-PCR analysis, and a positive control.



9. Capability & Features

- BioRad CFX 96™, CFX 96 TOUCH™
- Abi 7500 fast
- Can be used with most RT-PCR instruments

- Quick and easy inspection process
- One-step Real-time RT-PCR
- Provide all reagents for analysis

- Specific primers/probes (RdRP & E gene) for nCoV-specific gene detection
- Internal Control

Component parts	VoL.(50rxn)
2X One Step RT-PCR Mix	650 ul (2ea)
RNase Free water	1ml
5X nCoV primer Mix-1 (RdRn gene)	250ul
5X nCoV primer Mix-2 (E gene)	250ul
Positive Control (P.C)	100ul



10. Air Doctor – Virus Blocker

- **Product Description**

Air Doctor effectively kills pathogenic microorganisms such as fungi, bacteria and viruses.

- **Effect**

Decontaminate Virus(Influenza/MERS/COVID19)

-> Anti Virus/Virus blocker/Virus Shut-out

Decontaminate Fungus/Bacteria

-> Anti Bacteria/Fungus

Making Spores Inactive

-> Anti Allergy

- **Validity(after removing seal)**

Clip type - 30 ~ 45days

Gel type - 30 ~ 60days

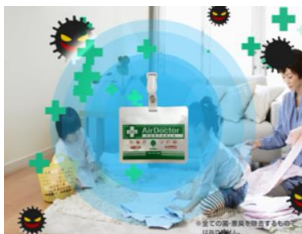
Fan type – 60days

- **Type**

Clip type – Portable

Gel type – In the car/In the room

Fan type – Replacement filter



11. Air Doctor – Portable Type

- **Effect**

Decontaminate Virus(Influenza/MERS/**COVID19**)

-> Anti Virus/Virus blocker/Virus Shut-out

Decontaminate Spores/Fungus/Bacteria

-> Anti Allergy

- **Features:**

Decontaminate Virus/Bacteria/ in a 1meter radius

Makes Spores inactive in a 1meter radius

With T-shirts/Pants/Bag/Baby carriage/in the car/etc.

Portable type – Easy to carry

Made in Japan

- **Validity**

Clip type - 30 ~ 45days - after removing seal



12. Evaluations

1) Bactericidal effects of Air Doctor (mist)

Bacteria	Test objects	Viable bacteria count/mL		
		Start	1 minute	5 minutes
<i>S. aureus</i>	Sample	(5.5×10^5)	<10	<10
	Control	5.5×10^5	-	5.4×10^5
<i>E. coli</i>	Sample	(5.2×10^5)	<10	<10
	Control	5.2×10^5	-	5.3×10^5
<i>P. aeruginosa</i>	Sample	(4.8×10^5)	<10	<10
	Control	4.8×10^5	-	4.9×10^5
<i>Salmonella</i>	Sample	(2.4×10^5)	<10	<10
	Control	2.4×10^5	-	2.5×10^5

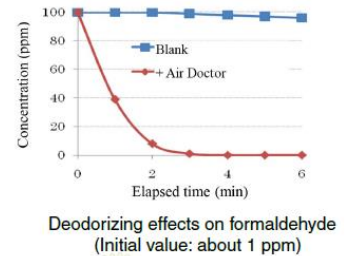
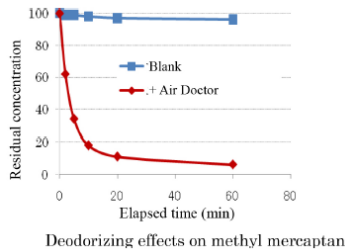
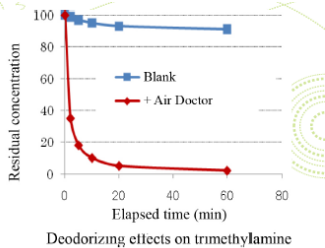
Note) Sample: Air Doctor (mist); Control: Purified water

Temperature of test solution: 25 °C, -: Not tested

Bacteria count at the start: The same number of bacteria as that under the same conditions as the control were plated.

<Point of results>

All the test bacteria were killed and reduced by 99.999% through short-time contact with Air Doctor (mist).



Test method:

Odorant gas was filled at a specific concentration in a 60-L container.

The changes in the concentration (residual concentration percentage of the initial value) of odor substances were followed over time in the presence or absence of coexisting Air Doctor.

<Point of results>

Air Doctor (gel) was very effective for removing odor substances.

13. Usage & Applications



Bed Room



Living Rooms



For Hospital Rooms.
Ideal for Low Immunity patients rooms.



Closet



Kitchen



In a car



Classrooms



Restaurant



Restrooms

Industrial product -> Easy to Import & Distribute -> No After Sales Service

Pharmacy

Convenient Store

Supermarket

TV home shopping

Online shopping mall

Open Market

Anti-Covid19 – with DaeWoo R&S

Thank you!