

Real-Time READ™ (REal Amplicon D**e**tection) **Technology**

Multiplex + Real-Time Platform

***High-throughput
Mass screening***

**94 Samples
376 Results in 2.5h**

**188 Samples
752 Results in 3h**

⋮

**564 Samples
2256 Results in 5h**



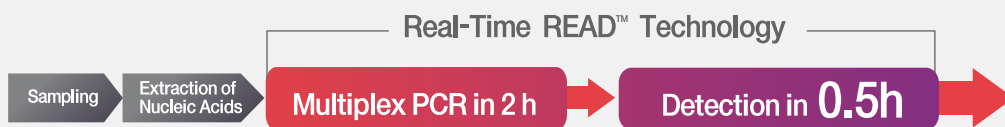
Multiplex + Real-time Platform

Real-Time READ™ Technology

The Real-Time READ™ Technology is a new concept of "really high throughput" technology adding multiplexing into real-time PCR platform. The strength of our technology is both mass screening and high quality test result. Our platform can be applicable to most of the real-time PCR machines in your laboratory.

“Experience real mass screening and high-throughput.”

Real-Time READ™ Technology



- Real-Time READ™ Technology makes it possible to

: **Detect and analyze** the amplified PCR products by conventional real-time PCR instruments such as BIO-RAD CFX96, QIAGEN Rotor-Gene 6000, Roche LC480 and ABI 7500, etc. after amplification of multiple targets by conventional PCR instruments.

: **Realize** real mass screening and high-throughput detection of multiple pathogens



* Real-Time PCR instruments for detection

5 channels	- QIAGEN Rotor-Gene 6000
	- BIO-RAD CFX96

3 channels	- ABI 7500
	- Roche LC480
	- Cepheid SmartCycler II
	- QIAGEN Rotor-Gene 3000

94 Samples
376 Results
in 2.5h

- 94 Clinical samples can be analysed simultaneously in 5 channel real-time PCR machine which produce 376 results.

Existing Real-Time PCR



22 Samples
88 Results
in 2.5h

Real-Time READ™ Respiratory Panel

Coming Soon

Multiplex-PCR

Amplification of over 35 pathogens in a single tube using conventional PCR

Influenza A virus
Swine-H1
Seasonal FluA H1
Seasonal FluA H3
Influenza B virus
Respiratory Syncytial Virus A, B
Parainfluenzavirus 1, 2, 3 & 4
Coronavirus 229E, OC43, NL63, HKU1
Adenovirus A, B, C, D, E
Rhinovirus A, B, C
Enterovirus A, B, C, D
Bocavirus 1, 2, 3, 4
Metapneumovirus
Legionella pneumophila
Chlamydomphila pneumoniae
Mycoplasma pneumoniae

Screening

OR

Identification

Detection in 0.5h

Detection on real-time platform

Screening tube (35 pathogens)

FluA, FluB, 29 other viruses, bacteria, Internal control)

ID after screening

ID tube 1 (READ™ FluA Subtyping)

FluA, Swine-H1, Seasonal H1, Seasonal H3, IC

ID tube 2 (4 viruses)

RSV A, RSV B, AdenoV, MPV, IC

ID tube 3 (4 viruses)

CoronaV229E/NL63, OC43/HKU1, RhinoV, EnteroV, IC

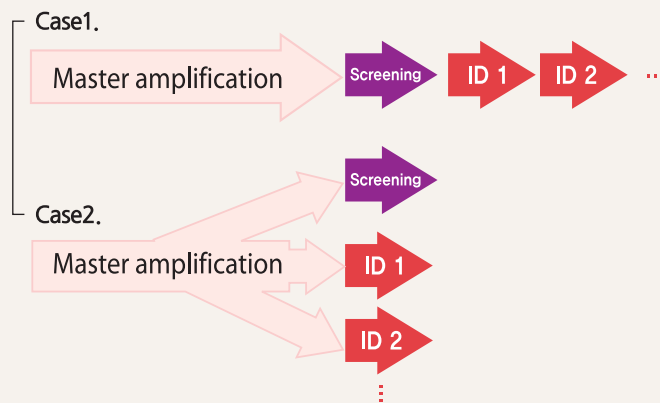
ID tube 4 (4 viruses)

Parainfluenzavirus 1, 2, 3, 4, IC

ID tube 5 (3 bacteria + 1 virus)

LP, CP, MP, BocaV, IC

ID: Identification



Respiratory Pathogen



Available soon

• Real-Time READ™ FluA Subtyping

- Follow WHO guidelines

Differentiation of new Influenza A virus and seasonal Influenza A virus

* WHO information for laboratory diagnosis of pandemic (H1N1) 2009 virus in humans (18 August 2009)

Interpretation of laboratory results :

PCR — A sample is considered positive if results from tests using **two different PCR targets (e.g. primers specific for universal M gene and swine H1 haemagglutinin gene) are positive but the PCR for human H1 + H3 is negative. If RT-PCR for multiple haemagglutinin (HA) targets (i.e. H1, H3, and H1-pandemic) give positive results in the same specimen, the possibility of PCR contamination should first be excluded** by repeating PCR procedure using new RNA extract from the original specimen or RNA extract from another specimen. If repeated positive results for multiple HA targets are obtained, this raises the possibility of co-infection, which should be confirmed by sequencing or virus culture.

(http://www.who.int/csr/resources/publications/swineflu/WHO_Diagnostic_RecommendationsH1N1_20090521.pdf)

- Simultaneous identification of Influenza A, B virus and New Influenza A virus (H1N1), seasonal Influenza A virus H1 and H3

- Mass screening, really high throughput

94 Samples 376 Results in 2.5h, 188 Samples 752 Results in 3h, ... , 564 Samples 2256 Results in 5h

Specimen : **Nasopharyngeal swab**, Bronchoalveolar lavage, Nasopharyngeal aspirates

• 5 Channel Real-time PCR machine

| READ™ FluA Subtyping ID 1

- Influenza A
- Swine FluA-H1
- Human FluA-H1
- Human FluA-H3
- Internal Control

- QIAGEN Rotor-Gene 6000
- BIO-RAD CFX96

• 3 Channel Real-time PCR machine

| READ™ FluA Subtyping ID 1-1
READ™ FluA Subtyping ID 1-2

A

- Influenza A
- Swine FluA-H1
- Internal Control

B

- Human FluA-H1
- Human FluA-H3
- Internal Control

- ABI 7500
- Roche LC480
- Cepheid SmartCycler II
- QIAGEN Rotor-Gene 3000

 **Seegene**
www.seegene.com

Seegene Inc.

Taewon Bldg., 65-5, Bangyi-Dong,
Songpa-Gu, Seoul 138-050, Korea
Tel: +82-2-2240-4050, 4054 (Korea)
+82-2-2240-4022 (international)

Seegene USA

9700 Great Seneca Highway, Rockville,
MD 20850, U.S.A.
Tel: +1-301-762-9066, +1-866-733-4949 (Toll free)
Fax: +1-301-762-9088, +1-866-733-4955 (Toll free)