

# Identify SARS-CoV-2 Variants

Allplex™ SARS-CoV-2 Variants I Assay

Multiplex real-time PCR testing in one tube

Reporting individual Ct value of multiple targets

Automated solution

Variant surveillance



## Move Forward to Defeat SARS-CoV-2 Variants

Allplex™ SARS-CoV-2 Variants I Assay differentiates the new variants and provides insight for proactive response.

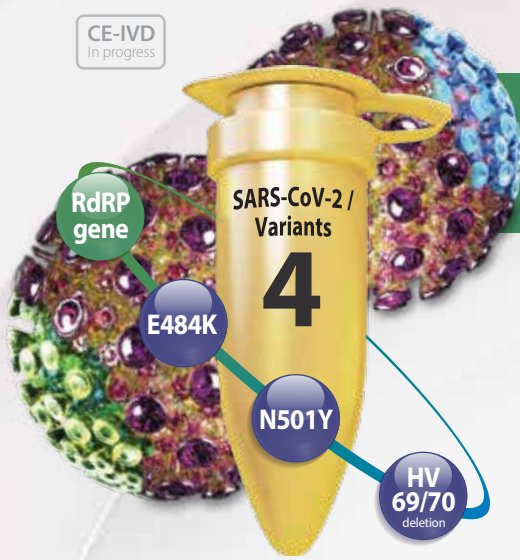
| Variant designation                      | VOC-202012/01               | 501Y.V2  | 501Y.V3  |
|--|-----------------------------|--|--|
| First reported                           | United Kingdom (Sep 2020)   | South Africa (Oct 2020)  | Brazil and Japan (Jan 2021)  |
| Lineage                                  | B.1.1.7                     | B.1.351  | P.1  |
| Notable types of spike protein mutations | HV 69-70 deletion and N501Y | K417N, E484K and N501Y   | K417T, E484K and N501Y   |
| Concern                                  | Increased transmissibility  | Increased transmissibility and possible reduction of vaccine effectiveness | Increased transmissibility and possible reduction of vaccine effectiveness |

“ Laboratories should consider implementing pre-screening RT-PCR approaches to detect N501Y or S-gene target failure (deletion 69-70) variant viruses. ”

(European Centre for Disease Prevention and Control, Stockholm, 2021)

# Seegene Solution for COVID-19 Variants

CE-IVD  
In progress



## Allplex™ SARS-CoV-2 Variants I Assay \*

- Analytes
- RdRP gene
  - E484K in S gene
  - N501Y in S gene
  - HV69/70 deletion in S gene
  - Endogenous IC

\* Patent pending



### Differentiation of SARS-CoV-2 variants

Differentiating notable S gene mutations including HV69/70 deletion, E484K and N501Y



### Automated solution

Short turnaround time (TAT), high-throughput testing on automated solution



### Reporting Ct values

Providing individual cycle threshold (Ct) value of multiple targets



### Multiplex real-time PCR testing in one tube

Multiplexing three different mutations in S gene and highly conserved region in RdRP gene in one tube



### Variant surveillance

Surveillance solution of SARS-CoV-2 variants for efficient infection control and patient care



### Reliable testing

Ensuring the entire process and minimizing false-negative results with an endogenous internal control

## Automated solution for efficient workflow



Automated extraction & PCR setup  
Seegene STARlet



Real-time PCR  
CFX96™ Dx



Automated interpretation  
Seegene Viewer



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## Kick your Real-time PCR up a notch!

With Seegene's core proprietary technology and expertise, enhance your MDx products with incomparable performance and usability.



### Oligo Design

Oligo design technology for high multiplex PCR: **SG-Insilico™**

Enables rapid designing of high multiplex oligos using Seegene-developed algorithms and confidential variables



### Amplification

Highly specific amplification technology for high multiplex PCR: **DPO™**

Allows the implementation of high multiplex diagnostics with unparalleled specificity using Seegene's unique primer structure



### Target Detection

High multiplex target detection technology: **TOCE™**

Achieves accurate target signals by independently controlling multiple target signals for primer and probe annealing temperatures



### Quantitative Detection

High multiplex target detection & quantification technology: **MuDT™**

Broadens capacity for high multiplex target detection & quantification by enabling analysis of multiple Ct values in a single detection channel



### Interpretation

High multiplex signal processing technology: **DSP™**

Enables accurate reporting of target's positive or negative results through Seegene's proprietary signal processing algorithms

## Ordering Information

| Product                                 | Volume    | Cat. No. |
|---|-----------|----------|
| Allplex™ SARS-CoV-2/FluA/FluB/RSV Assay | 50 rxns   | RV10260Y |
|   | 100 rxns* | RV10259X |
| Allplex™ SARS-CoV-2 Variants I Assay    | 50 rxns   | RV10287Y |
|   | 100 rxns* | RV10286X |
| Allplex™ SARS-CoV-2 plus Variants Assay | 50 rxns   | RV10285Y |
|   | 100 rxns* | RV10284X |

| Instrument                              | Cat. No.                  |
|---|---------------------------|
| CFX96™ Dx (2 modules)                   | 1845097-IVD & 1841000-IVD |
| Seegene NIMBUS                          | 65415-03                  |
| Seegene STARlet                         | 67930-03                  |
| SEEPREP32™                              | SG71100                   |
| Maelstrom™ 9600                         | M9600                     |
| STARMag 96 X 4 Universal Cartridge kit* | 74430041UC384             |
| STARMag 96 x 4 viral DNA/RNA 200 C kit* | EX00013C                  |
| STARMag 96 ProPrep (Plate type)**       | EX00009P                  |
| STARMag 96 ProPrep (Tube type)**        | EX00009T                  |
| STARMag 96 ProPrep C (Plate type)**     | EX00017P                  |
| STARMag 96 ProPrep C (Tube type)**      | EX00017T                  |
| TANBEAD™ Nucleic Acid Extraction kit*** |                           |
| OptiPure Viral Auto Tube                | W665566                   |
| OptiPure Viral Bulk Plate               | W665A10                   |
| SGRespi™ Pure (Plate type)***           | EX00023P                  |
| SGRespi™ Pure (Plate type)***           | EX00024P                  |
| SGRespi™ Pure (Tube type)***            | EX00025T                  |

\* For use with Seegene NIMBUS and Seegene STARlet only,

\*\* For use with SEEPREP32™, \*\*\* For use with Maelstrom™ 9600

Not Available for Sale in the United States