

# Product insert

## SARS-CoV-2 Variant ValuPanel assays

For Research Use Only. Not for use in diagnostic procedures.

[SARS-CoV-2 Variant ValuPanel™ assays](#) consist of separately delivered probes and primers that are designed for qualitative detection of specific SARS-CoV-2 mutations by (reverse transcription-polymerase chain reaction) RT-PCR-based genotyping. Each SARS-CoV-2 Variant ValuPanel assay consists of two [BHQplus™ Probes](#) and two primers for amplification and simultaneous discrimination between a single mutation and the wild type SARS-CoV-2 sequence.

SARS-CoV-2 Variant ValuPanel assays are for research use only, they are not intended for SARS-CoV-2 diagnosis. The assays are intended for secondary, informational tests only, designed for screening samples that have previously tested positive for SARS-CoV-2 by diagnostic RT-PCR.

Cat no.	Product description	SARS-CoV-2 target mutation
SCV-E484K-1000	SARS-CoV-2 Variant ValuPanel [E484K]	E484K
SCV-E484Q-1000	SARS-CoV-2 Variant ValuPanel [E484Q]	E484Q
SCV-N501Y-1000	SARS-CoV-2 Variant ValuPanel [N501Y]	N501Y
SCV-del69-70-1000	SARS-CoV-2 Variant ValuPanel [del H69-V70]	ΔH69-V70
SCV-P681H-v2-1000	SARS-CoV-2 Variant ValuPanel [P681H] (Version 2)	P681H
SCV-P681R-1000	SARS-CoV-2 Variant ValuPanel [P681R]	P681R
SCV-K417N-1000	SARS-CoV-2 Variant ValuPanel [K417N]	K417N
SCV-K417T-1000	SARS-CoV-2 Variant ValuPanel [K417T]	K417T
SCV-L452R-1000	SARS-CoV-2 Variant ValuPanel [L452R]	L452R

Each panel contains the following:

- Forward and reverse primers to amplify the SARS-CoV-2 target sequence. One primer also initiates reverse transcription of the target sequence.
- BHQplus Probes that specifically detect the mutation site
  - A mutation-specific probe labeled with CAL Fluor™ Orange 560
  - A reference/wild type-specific probe labeled with FAM

Probes and primers are supplied in dried format, at 5 nmol of each probe and 20 nmol of each primer. Probes and primers are delivered in separate tubes; they are not premixed. See the relevant manual for recommended probe and primer concentrations.

SARS-CoV-2 Variant ValuPanel assays are designed to be compatible with all qPCR instruments that are capable of detecting FAM and CAL Fluor Orange 560 (VIC™/HEX/JOE channel).

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### SARS-CoV-2 Variant ValuPanel assays

SARS-CoV-2 Variant ValuPanel [E484K]

Cat. no.: SCV-E484K-1000

Component cat. no.	Oligo type	Target	Dye	Quencher	Oligo amount
SCV-E484-P-5	Probe	E484 wild type	FAM	BHQ-1 Plus	5 nmol
SCV-K484-P-5	Probe	E484K mutation	CAL Fluor Orange 560	BHQ-1 Plus	5 nmol
SCV-484-F-20	Primer	N/A	N/A	N/A	20 nmol
SCV-484-R-20	Primer	N/A	N/A	N/A	20 nmol
SCV-484-In-R-20*	Primer (alternate primer)*	N/A	N/A	N/A	20 nmol

\* Due to proximal mutations known to occur in this assay, we included a choice of reverse primers. We recommend testing both reverse primers, SCV-484-R-20 and SCV-484-In-R-20, separately to see which performs optimally with customer-specific reaction conditions and samples. The alternate reverse primer, SCV-484-In-R-20, includes a degenerative base to accommodate the proximal mutation S477N.

SARS-CoV-2 Variant ValuPanel [E484Q]

Cat. no.: SCV-E484Q-1000

Component cat. no.	Oligo type	Target	Dye	Quencher	Oligo amount
SCV-E484-P-5	Probe	E484 wild-type	FAM	BHQ-1 Plus	5 nmol
SCV-Q484-P-5	Probe	E484Q mutation	CAL Fluor Orange 560	BHQ-1 Plus	5 nmol
SCV-484-F-20	Primer	N/A	N/A	N/A	20 nmol
SCV-484-In-R-20	Primer	N/A	N/A	N/A	20 nmol

SARS-CoV-2 Variant ValuPanel [N501Y]

Cat. no.: SCV-N501Y-1000

Component cat. no.	Oligo type	Target	Dye	Quencher	Oligo amount
SCV-N501-P-5	Probe	N501 wild type	FAM	BHQ-1 Plus	5 nmol
SCV-Y501-P-5	Probe	N501Y mutation	CAL Fluor Orange 560	BHQ-1 Plus	5 nmol
SCV-501-F-20	Primer	N/A	N/A	N/A	20 nmol
SCV-501-R-20	Primer	N/A	N/A	N/A	20 nmol

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SARS-CoV-2 Variant ValuPanel [del H69-V70]

Cat. no.: SCV-del69-70-1000

Component cat. no.	Oligo type	Target	Dye	Quencher	Oligo amount
SCV-69-70-P-5	Probe	Wild type	FAM	BHQ-1 Plus	5 nmol
SCV-del69-70-P-5	Probe	$\Delta$ H69-V70	CAL Fluor Orange 560	BHQ-1 Plus	5 nmol
SCV-69-70-F-20	Primer	N/A	N/A	N/A	20 nmol
SCV-69-70-R-20	Primer	N/A	N/A	N/A	20 nmol

SARS-CoV-2 Variant ValuPanel [P681H] (Version 2)\*

Cat. no.: SCV-P681H-v2-1000

Component cat. no.	Oligo type	Target	Dye	Quencher	Oligo amount
SCV-P681-P-v2-5	Probe	P681 wild type	FAM	BHQ-1 Plus	5 nmol
SCV-H681-P-v2-5	Probe	P681H mutation	CAL Fluor Orange 560	BHQ-1 Plus	5 nmol
SCV-681-F-v2-20	Primer	N/A	N/A	N/A	20 nmol
SCV-681-R-v2-20	Primer	N/A	N/A	N/A	20 nmol

\* We replaced the first version of the P681H assay (Cat. No. SCV-P681H-1000) with SARS-CoV-2 Variant ValuPanel [P681H] (Version 2), which was designed to avoid the potential proximal mutation at Q677 and demonstrates improved cluster separation in endpoint genotyping analysis.

SARS-CoV-2 Variant ValuPanel [P681R]

Cat. no.: SCV-P681R-1000

Component cat. no.	Oligo type	Target	Dye	Quencher	Oligo amount
SCV-P681-P-v2-5	Probe	P681 wild-type	FAM	BHQ-1 Plus	5 nmol
SCV-R681-P-5	Probe	P681R mutation	CAL Fluor Orange 560	BHQ-1 Plus	5 nmol
SCV-681-F-v2-20	Primer	N/A	N/A	N/A	20 nmol
SCV-681-R-v2-20	Primer	N/A	N/A	N/A	20 nmol

SARS-CoV-2 Variant ValuPanel [K417N]

Cat. no.: SCV-K417N-1000

Component cat. no.	Oligo type	Target	Dye	Quencher	Oligo amount
SCV-K417-P-5	Probe	K417 wild type	FAM	BHQ-1 Plus	5 nmol
SCV-N417-P-5	Probe	K417N mutation	CAL Fluor Orange 560	BHQ-1 Plus	5 nmol
SCV-417-F-20	Primer	N/A	N/A	N/A	20 nmol
SCV-417-R-20	Primer	N/A	N/A	N/A	20 nmol

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SARS-CoV-2 Variant ValuPanel [K417T]

Cat. no.: SCV-K417T-1000

Component cat. no.	Oligo type	Target	Dye	Quencher	Oligo amount
SCV-K417-P-5	Probe	K417 wild type	FAM	BHQ-1 Plus	5 nmol
SCV-T417-P-5	Probe	K417T mutation	CAL Fluor Orange 560	BHQ-1 Plus	5 nmol
SCV-417-F-20	Primer	N/A	N/A	N/A	20 nmol
SCV-417-R-20	Primer	N/A	N/A	N/A	20 nmol

SARS-CoV-2 Variant ValuPanel [L452R]

Cat. no.: SCV-L452R-1000

Component cat. no.	Oligo type	Target	Dye	Quencher	Oligo amount
SCV-L452-P-5	Probe	L452 wild-type	FAM	BHQ-1 Plus	5 nmol
SCV-R452-P-5	Probe	L452R mutation	CAL Fluor Orange 560	BHQ-1 Plus	5 nmol
SCV-452-F-20	Primer	N/A	N/A	N/A	20 nmol
SCV-452-R-20	Primer	N/A	N/A	N/A	20 nmol


### Storage

SARS-CoV-2 Variant ValuPanel assays are shipped at ambient temperature. Upon receipt store at +2 to +8 °C. Once rehydrated, the oligonucleotides should be aliquoted and stored at -30 °C to -15 °C. Multiple freeze-thaw cycles should be avoided. Probes should be protected from light.

### Certificates of Analysis (CoA)

Please contact [techsupport@lgcgroup.com](mailto:techsupport@lgcgroup.com) to obtain lot-specific CoAs.

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