

# AccuPlex™ SARS-CoV-2 Variant Reference Materials

## CLINICAL DIAGNOSTIC QUALITY SOLUTIONS FOR SARS-COV-2 VARIANT ANALYSIS

### HIGHLIGHTS

NON-INFECTIOUS  
AND REPLICATION  
DEFICIENT; ENSURES  
SAFE HANDLING IN  
CONTRAST TO VIRAL  
SAMPLES

FULLY EXTRACTABLE  
WITH A REAL VIRAL  
PROTEIN COAT;  
SUPERIOR TO "NAKED"  
TRANSCRIBED RNA

2 YEAR STABILITY AT  
2 – 8°C

**AccuPlex SARS-CoV-2 Variant Reference Materials** offer complete SARS-CoV-2 genome coverage with a focus on representative S and N gene mutations (Table 1) in prominent variants of concern (VOC). Each kit has one vial for each included variant, a wild type (reference sequence NC\_045512) control vial, and an RNase P negative control vial.

Product Description	Material Number	Strain	Pack Size	Concentration
AccuPlex SARS-CoV-2 Variant Panel 1	0505-0241	UK B.1.1.7 S. Africa B.1.351 Brazil P.1 Wuhan Wild Type RNase P negative	Positive 4 x 1.5 mL Negative 1 x 1.5 mL	Positive 15,000 cp/mL Negative 5,000 cp/mL
AccuPlex SARS-CoV-2 Variant Panel 2	0505-0276	Kappa B.1.617 Delta B.1.617.2 Delta Plus AY.1 Wuhan Wild Type RNase P negative		
AccuPlex SARS-CoV-2 Omicron Variant Reference Material Kit	0505-0298	Omicron B.1.1.529 Wuhan Wild Type RNase P negative	Positive 2 x 1.5 mL Negative 1 x 1.5 mL	

*Not for In Vitro Diagnostic Use. Research Use Only.*

### SARS-COV-2 VARIANT SOLUTION:

- Performance confirmation of existing SARS-CoV-2 molecular assays with different variants
- Reference materials for SARS-CoV-2 variant genotyping assays
- Reference materials for SARS-CoV-2 NGS assays

### LEARN MORE

To learn more about AccuPlex SARS-CoV-2 Quality Solutions visit: [www.seracare.com/SARSCoV2](http://www.seracare.com/SARSCoV2) or contact customer service at 800.676.1881..

## ABOUT LGC SERACARE

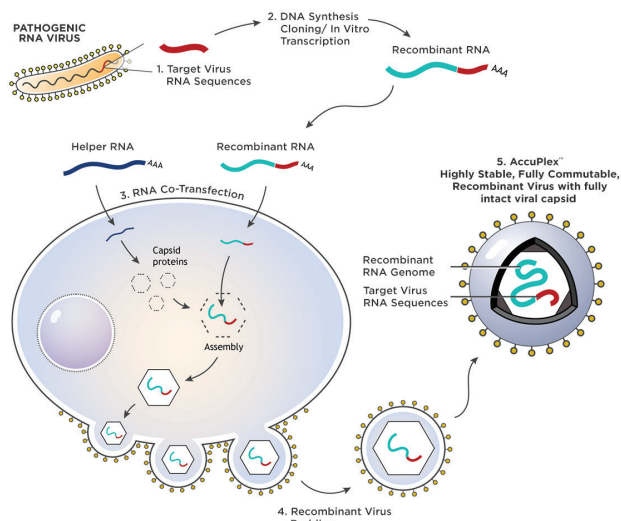
TRUSTED SUPPLIER  
TO THE DIAGNOSTIC  
TESTING INDUSTRY  
FOR OVER 30 YEARS

HIGH-QUALITY  
CONTROL PRODUCTS,  
RAW BIOLOGICAL  
MATERIALS, AND  
IMMUNOASSAY  
REAGENTS

INNOVATIVE TOOLS  
AND TECHNOLOGIES  
TO PROVIDE  
ASSURANCE IN  
DIAGNOSTIC ASSAY  
PERFORMANCE AND  
TEST RESULTS

FOR MORE  
INFORMATION, PLEASE  
VISIT OUR WEBSITE:  
[WWW.SERACARE.COM](http://WWW.SERACARE.COM)

LGC SeraCare's AccuPlex recombinant material serves as a true full process molecular control for your diagnostic assays. Compatible with multiplexed RT-PCR and NGS-based assays, AccuPlex custom recombinant materials are constructed with a replication-deficient mammalian virus, producing a safe, non-infectious material (Figure 1). With a protein coat and lipid bilayer, these mammalian virus-based reference materials resemble the complexity of virus targets found in true patient samples.



**FIGURE 1:** 1) RNA sequence from the pathogenic virus of interest is chosen. 2) DNA synthesis and cloning occur to produce the recombinant RNA. 3) Recombinant RNA and helper RNA are co-transfected into the mammalian cells, allowing the encapsulation of recombined RNA. 4) Exocytosis of the mature enveloped non-infectious and replication deficient RNA virus containing the assay target RNA sequence of interest

## MOST 'PATIENT SAMPLE-LIKE' MATERIAL EVALUATES ENTIRE WORKFLOW

Unlike RNA-spiked buffer, or technologies that package viral RNA into a bacteriophage, the AccuPlex recombinant closely resembles the wild-type mammalian pathogenic virus. This enables the release of the viral genome at a similar rate to the wild-type virus during the nucleic acid sample preparation process. AccuPlex recombinant material mimics a real patient sample in your workflow, serving as a full-process control for your assay.

## ACCUPLEX SOLVES ASSAY DEVELOPMENT CHALLENGES

If you're developing diagnostics for emerging viral diseases and have the challenge of including safe, non-infectious controls in your test kit, partner with LGC SeraCare's talented R&D team to produce your custom AccuPlex recombinant virus material (DNA or RNA-based). Utilizing your sequences of interest and product specifications, we will develop a custom solution which meets your unique requirements.

## ORDERING INFORMATION

To place an order, or learn more about our SARS-CoV-2 Quality Solutions, please contact us at +1.508.244.6400 and 800.676.1881 or email [CDx-CustomerService@lgcgroup.com](mailto:CDx-CustomerService@lgcgroup.com)



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MKT-00595-03

**Table 1: Mutations and variant strains contained in the AccuPlex SARS-CoV-2 Variant Reference Materials**

<b>Nucleotide Change</b>	<b>Amino Acid Change</b>	<b>UK B.1.1.7</b>	<b>S. Africa B.1.351</b>	<b>Brazil P.1</b>	<b>Kappa B.1.617</b>	<b>Delta B.1.617.2</b>	<b>Delta Plus AY.1</b>	<b>Omicron B.1.1.529</b>
C21614T	L18F			X				
C21618G	T19R					X	X	
C21621A	T20N			X				
C21638T	P26S			X				
C21762T	A67V							X
21765-21770 deletion	HV 69-70 deletion	X						X
A21801C	D80A		X					
C21846T	T95I				X	X	X	X
T21895C	Silent				X			
G21974T	D138Y			X				
G21987A	G142D				X	X		
21987 - 21995 deletion	G142D							X
21991-21993 deletion	Y144 deletion	X						
G22022A	E154K				X			
22029-22034 del AGTTCA	E156G					X	X	
22029-22034 del AGTTCA	F157 and R158Del					X	X	
G22132T	R190S			X				
22194 - 22196 deletion	NL211I							X
A22206G	D215G		X					
22205GAGCCAGAAins	215EPEins							X
22286-22294 Del	242_244 DelLAL		X					
G22335T	W258L						X	
G22578A	G339D							X
TC22673CT	S371L							X
T22679C	S373P							X
C22686T	S375F							X
G22813T	K417N		X				X	X
A22812C	K417T			X				
T22882G	N440K							X
G22898A	G446S							X
T22917G	L452R				X	X	X	
G22992A	S477N							X
C22995A	T478K					X	X	X
G23012A	E484K		X	X				
G23012C	E484Q				X			
A23013C	E484A							X
A23040G	Q493R							X
G23048A	G496S							X
A23055G	Q498R							X
A23063T	N501Y	X	X	X				X
T23075C	Y505H							X
C23202A	T547K							X
C23271A	A570D	X						

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Nucleotide Change	Amino Acid Change	UK B.1.1.7	S. Africa B.1.351	Brazil P.1	Kappa B.1.617	Delta B.1.617.2	Delta Plus AY.1	Omicron B.1.1.529
A23403G	D614G	X	X	X	X	X	X	X
C23525T	H655Y			X				X
T23599G	N679K							X
C23604A	P681H	X						X
C23604G	P681R				X	X	X	
C23664T	A701V		X					
C23709T	T716I	X						
C23854A	N764K							X
G23948T	D796Y							X
C24130A	N856K							X
G24410A	D950N					X	X	
A24424T	Q954H							X
T24469A	N969K							X
C24503T	L981F							X
T24506G	S982A	X						
C24642T	T1027I			X				
A24775T	Q1071H				X			
G24914C	D1118H	X						
C25000T	D1146D							X
G25088T	V1176F			X				
C25584T	T64T							X
A28271T	n/a							X
C28311T	P13L							X
28362 - 28370 deletion	ERS31del							X
G28881A, G28882A, G28883C	RG203KR							X