

# AccuPlex™ SARS-CoV-2 Reference Materials

REFERENCE MATERIAL SOLUTIONS FOR SARS-COV-2 ASSAY DEVELOPMENT AND QUALITY CONTROL

## HIGHLIGHTS

COMPATIBLE WITH CDC AND WHO CONSENSUS SEQUENCES FOR SARS-COV-2

REAL MAMMALIAN VIRUS ENABLES FULL-PROCESS QC FOR RT-PCR BASED VIRAL DISEASE ASSAYS.

NON-INFECTIOUS AND REPLICATION DEFICIENT; ENSURES SAFETY DURING ASSAY DEVELOPMENT AND END-USER QC APPLICATIONS

**In response to the severe threat to public health posed by the global spread of COVID-19, LGC SeraCare has developed reference materials utilizing their proprietary AccuPlex technology. These will serve as valuable tools to accelerate development, validation, and implementation of precision diagnostic tests necessary to ensure accurate diagnosis of COVID-19 in order to support treatment and containment efforts.**

The AccuPlex™ SARS-CoV-2 Reference Material Kit contains positive reference material directed against the published CDC and WHO consensus sequences (Table 1). Also included are negative controls targeting the human RNase P gene. In cases where true patient samples are difficult to source or too risky to directly handle, AccuPlex technology provides the ideal solution for assay development and QC requirements. *Not for In Vitro Diagnostic Use. Research Use Only.*

Product Description	Material Number	Pack Size	Concentration
<b>AccuPlex SARS-CoV-2 Reference Material Kit</b>	<b>0505-0126</b>	<b>5 x 1.5 mL Positive Vials 5 x 1.5 mL Negative Vials</b>	<b>5000 copies/mL</b>

***For bulk quantities or custom concentrations, please contact SeraCare customer service.***

### SeraCare's SARS-CoV-2 AccuPlex solution:

- Non-infectious and replication deficient, enables safe handling of positive material
- Fully-extractable with a real viral protein coat; serves as a full-process control
- Compatible with assays targeting CDC and WHO consensus sequences. (Table 1)
- Includes negative reference material for targeting sequences for the human RNase P gene
- 2 year stability at 2 - 8°C
- Customizable to sequences of interest to meet unique assay design requirements

Region	Included Nucleotides
<b>ORF1a</b>	<b>417..1899</b>
	<b>3094..3360</b>
<b>RdRp</b>	<b>13291..13560</b>
	<b>14700..15950</b>
	<b>18577..19051</b>
<b>E (Envelope)</b>	<b>25801..28200</b>
<b>N (Nucleocapsid)</b>	<b>27952..29873</b>



**Table 1:** Regions included in AccuPlex Coronavirus (SARS-CoV-2) Positive Reference Material. Numbers refer to sequence of GenBank NC\_045512.2

**To learn more about AccuPlex SARS-CoV-2 Reference Material visit:**

**<https://www.seracare.com/AccuPlex-SARSCoV2> or contact customer service at 800.676.1881**

**ABOUT SERACARE**

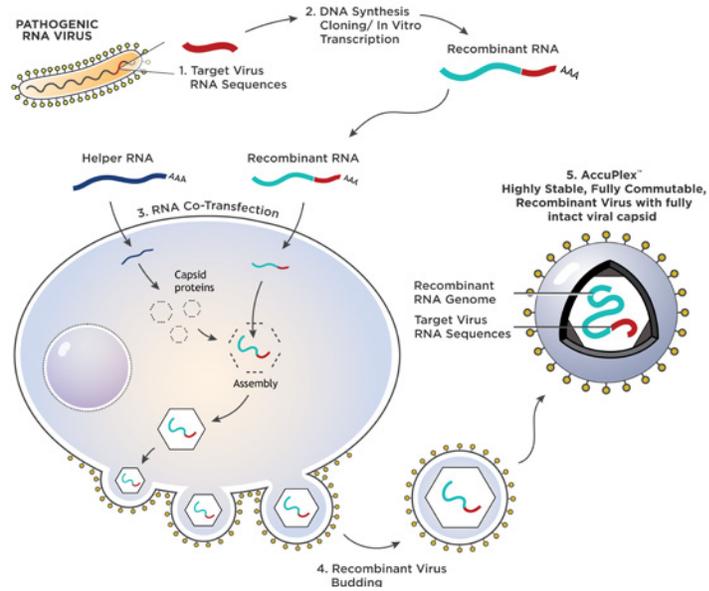
TRUSTED SUPPLIER TO DIAGNOSTIC MANUFACTURERS AND CLINICAL LABS FOR OVER 30 YEARS.

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

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 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.

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**ORDERING INFORMATION**

To place an order, or learn more about our SARS-CoV-2 reference material solutions, please contact us at +1.508.244.6400 and 800.676.1881 or email customerservice@seracare.com.

