

# Product Information

## SARS-CoV-2 S Protein, Mutant (W152C, L452R, D614G) Virus-like Particles (SARS2 S VLPs)

Cat. No.: **S01YF-0922-KX1546**

This product is for research use only and is not intended for diagnostic use.

Recombinant SARS-CoV-2 S Virus-like Particles (SARS2 S VLPs) are produced in HEK293 cells expression system, assembled with S Protein. VLP is mimicking the native 3D structure of viruses which can elicit strong immune responses. However, VLPs lack viral genomic material which makes them non-infectious, unable to replicate and enhance the safety during manufacture and administration. SARS-CoV-2 VLPs can be used in the development of SARS-CoV-2 diagnostics and in vaccine development and R&D (including use as an immunogen).

### Product Specifications

#### Structural Proteins

S Protein

#### Expression Systems

HEK293 expression system

#### Form

Liquid

#### Alternative Names

SARS-Related Coronavirus 2; SARS-COV 2; COVID-19; SARS-CoV-2

#### Storage

Store at -80 °C long term. Avoid repeated freeze/thaw cycles.

#### Sequence

mfvflvllplvssqcvnltrtqlppaytnsftrgvyyypdkvfrssvlhstqdlflpffsnvtwfhaihvsgtngtkrfdnvpvlpfndgvyfasteksniirgwifgtldsktqsllivnnatnvvikvcet

### Virus Background

#### Virus Family

Coronaviridae

#### Virus Species

SARS-CoV-2

#### Virus Overview

SARS-CoV-2 is a positive-sense single-stranded RNA virus (and hence Baltimore class IV) that is contagious in humans. As described by the US National Institutes of Health, it is the successor to SARS-CoV-1, the virus that caused the 2002-2004 SARS outbreak. Taxonomically, SARS-CoV-2 is a virus of the species severe acute respiratory syndrome-related coronavirus (SARS-CoV). It is believed to have zoonotic origins and has close genetic similarity to bat coronaviruses, suggesting it emerged from a bat-borne virus. Research is ongoing as of February 2020 as to whether SARS-CoV-2 came directly from bats or indirectly through any intermediate hosts. The virus primarily spreads between people through

close contact and via respiratory droplets produced from coughs or sneezes. It mainly enters human cells by binding to the angiotensin converting enzyme 2 (ACE2).

### **Virus Structure**

Enveloped, positive-sense, single-stranded RNA virus

### **Related Disease**

Severe acute respiratory syndrome, SARS-CoV-2 Disease, COVID-19