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Product Information

SARS-CoV-2 Virus-like Particles (SARS2 VLPs)-S/M/E-SF21

Cat. No.: **VLP-050YF**
This product is for research use only and is not intended for diagnostic use.

Recombinant SARS-CoV-2 Virus-like Particles (SARS2 VLPs)-S/M/E are produced in Insect SF21 cell expression system, assembled with Spike protein (S), Membrane protein (M) and Envelope protein (E). 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

Spike protein (S), Membrane protein (M) and Envelope protein (E)

Expression Systems

Insect cell (Sf21) expression system

Buffer

20mM Tris-Cl, pH7.9, 100mM NaCl and 0.5mM EDTA

Form

Liquid

Alternative Names

SARS-Related Coronavirus 2 M/S/E Virus-like Particles; SARS-COV 2 M/S/E VLPs; SARS-Related Coronavirus 2 Virus-like Particles; SARS-COV 2 VLPs; VLPs; Virus-like Particles; SARS-Related Coronavirus 2 M/S/E; SARS-COV 2 M/S/E; COVID-19; SARS-Related Coronavirus 2 Membrane protein (M), Spike protein (S) and Envelope protein (E); SARS-COV 2 Membrane protein (M), Spike protein (S) and Envelope protein (E); SARS-CoV-2; COVID-19

Storage

Store at 4°C short term (2-4 weeks). Store at -80 °C long term. Avoid repeated freeze/thaw cycles.

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 (SARSr-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

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