



Recombinant SARS-CoV-2 VLP (SEMN) (DAG-WT376)

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

PRODUCT INFORMATION

Product Overview	SARS-CoV-2 virus-like particles are composed of four structural proteins: Membrane protein (M), Nucleocapsid protein (N), Spike protein (S) and Envelope protein (E). VLPs are produced in HEK293 cells
Conjugate	Unconjugated
Applications	Immunoassays
Format	Liquid
Concentration	Batch dependent - please inquire should you have specific requirements
Size	100 µg, 1 mg
Buffer	10 mM Tris, 1 M NaCl, 20% sucrose, 1 mM EDTA
Preservative	None
Storage	Store at -80°C. Avoid multiple freeze/thaw cycles.

BACKGROUND

Introduction	The spike (S) glycoprotein of coronaviruses contains protrusions that will only bind to certain receptors on the host cell: they are essential for both host specificity and viral infectivity. The term 'peplomer' is typically used to refer to a grouping of heterologous proteins on the virus surface that function together. The spike (S) glycoprotein of coronaviruses is known to be essential in the binding of the virus to the host cell at the advent of the infection process. Most notable is severe acute respiratory syndrome (SARS). The severe acute respiratory syndrome-coronavirus (SARS-CoV) spike (S) glycoprotein alone can mediate the membrane fusion
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required for virus entry and cell fusion. It is also a major immunogen and a target for entry inhibitors. The SARS-CoV spike (S) protein is composed of two subunits; the S1 subunit contains a receptor-binding domain that engages with the host cell receptor angiotensin-converting enzyme 2 and the S2 subunit mediates fusion between the viral and host cell membranes. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity, during infection with SARS-CoV.

Keywords	SARS-CoV-2; COVID-19; Spike protein
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