



# Recombinant SARS-CoV-2 S2 Protein [His] (DAGC300)

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

## PRODUCT INFORMATION

<b>Product Overview</b>	Recombinant SARS-CoV-2 Spike Protein, S2 Subunit derived from E.coli, N-terminal histidine tag.
<b>Species</b>	SARS-CoV-2
<b>Purity</b>	>95 %
<b>Conjugate</b>	His
<b>Applications</b>	SDS-PAGE
<b>Molecular Weight</b>	~58 kDa
<b>Format</b>	Liquid
<b>Size</b>	100 µg, 500 µg, 1 mg
<b>Buffer</b>	50 mM Na <sub>2</sub> HPO <sub>4</sub> (pH 7.4), 0.5 M NaCl, 450 mM imidazole, 6 M urea.
<b>Preservative</b>	None
<b>Storage</b>	Upon arrival, the protein may be stored for 2 weeks at 4°C. For long term storage, it is recommended to store at -20°C or -80°C in appropriate aliquots. Avoid repeated freeze-thaw cycles.

## BACKGROUND

<b>Introduction</b>	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. It's been reported that SARS-CoV-2 can
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infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. The spike protein is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 contains basic elements needed for the membrane fusion. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity. The main functions for the Spike protein are summarized as: Mediate receptor binding and membrane fusion; Defines the range of the hosts and specificity of the virus; Main component to bind with the neutralizing antibody; Key target for vaccine design; Can be transmitted between different hosts through gene recombination or mutation of the receptor binding domain (RBD), leading to a higher mortality rate.

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**Keywords**

SARS-CoV-2; coronavirus; SARS-CoV-2 S2 ECD; SARS-CoV-2 spike protein; SARS-CoV-2 S2; SARS-CoV-2 ECD; SARS-CoV-2 S2 Subunit

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