Active Recombinant SARS-CoV-2 B.1.1.529 Spike Protein, His-tagged, Alexa Fluor® 647 conjugated

Cat. No. S-2017S **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant SARS-CoV-2 B.1.1.529 Alexa Fluor® 647 conjugated Spike (Val16-Lys1211) (Ala67Val, His69del, Val70del, Thr95Ile, Gly142Asp, Val143del, Tyr144del, Tyr145del, Asn211del, Leu212Ile, ins214Glu-Pro-Glu, Gly339Asp, Ser371Leu, Ser373Pro, Ser375Phe, Lys417Asn, Asn440Lys, Gly446Ser, Ser477Asn, Thr478Lys, Glu484Ala, Gln493Arg, Gly496Ser, Gln498Arg, Asn501Tyr, Tyr505His, Thr547Lys, Asp614Gly, His655Tyr, Asn679Lys, Pro681His, Asn764Lys, Asp796Tyr, Asn856Lys, Gln954His, Asn969Lys, Leu981Phe) (Arg682Ser, Arg685Ser, Lys986Pro, Val987Pro) protein with His-tag at C-terminus was expressed in human embryonic kidney cell.
Species	SARS-CoV-2
Source	HEK293
Description	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is an enveloped, positive-sense, single-stranded RNA virus that causes coronavirus disease 2019 (COVID-19). Virus particles include the RNA genetic material and structural proteins needed for invasion of host cells. Once inside the cell the infecting RNA is used to encode structural proteins that make up virus particles, nonstructural proteins that direct virus assembly, transcription, replication and host control and accessory proteins whose function has not been determined.~ The structural proteins of SARS-CoV-2 include the envelope protein (E), spike or surface glycoprotein (S), membrane protein (M) and the nucleocapsid protein (N). The spike glycoprotein is found on the outside of the virus particle and gives coronavirus viruses their crown-like

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	appearance. This glycoprotein mediates attachment of the virus particle and entry into the host cell. S protein is an important target for vaccine development, antibody therapies and diagnostic antigen-based tests.
Form	Labeled with Alexa Fluor® 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Bio-activity	Measured by flow cytometry for its ability to bind HEK293 human embryonic kidney cells transfected with human ACE-2 at 0.500-2.00 μg/mL (100 μL/well).
Molecular Mass	138 kDa
N-terminal Sequence Analysis	Val16
Endotoxin	< 1.0 EU/ μg of the protein by the LAL method.
Purity	> 95% by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Storage	Protect from light. Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after opening. 3 months, -20 to -70 centigrade under sterile conditions after opening.
Storage Buffer	Supplied as a 0.2 μm filtered solution in PBS with BSA as a carrier protein.
Shipping	The product is shipped with dry ice or equivalent.

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Conjugation	Alexa Fluor 647

GENE INFORMATION

Gene Name	S surface glycoprotein [Severe acute respiratory syndrome coronavirus 2]
Official Symbol	S
Synonyms	S; surface glycoprotein; spike glycoprotein; surface glycoprotein; structural protein; spike protein
Gene ID	43740568
Protein Refseq	YP_009724390
FC	HEK293 human embryonic kidney cells transfected with human ACE-2 were stained with (A) Recombinant SARS-CoV-2 B.1.1.529 Spike (GCN4-IZ) His-tag Alexa Fluor® 647 or (B) unstained (open histogram).
SDS-PAGE	2 μg/lane of Recombinant SARS-CoV-2 B.1.1.529 Spike (GCN4-IZ) His-tag Alexa Fluor® 647 Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 145-175 kDa.

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