Rev03
Update: Dec,14,2021

DATASHEET

SARS-CoV-2 Spike protein (S1, T95I, G142D, E154K, L452R, E484Q, D614G, P681R, His Tag)

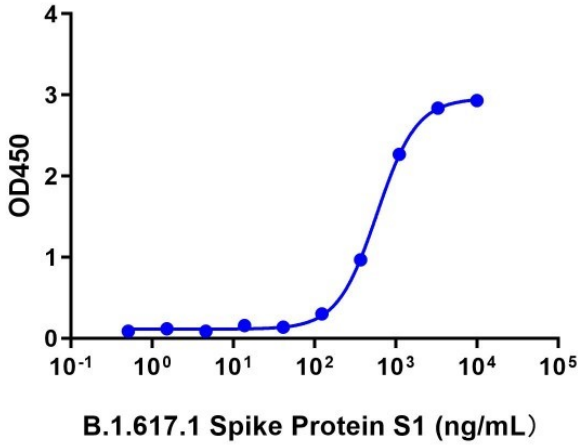
Cat. No.: Z03611

Product Introduction

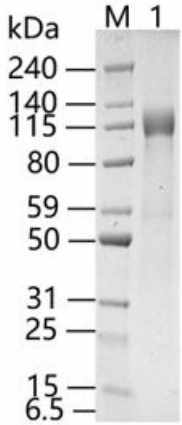
Species	SARS-CoV-2
Protein Construction	Expressed with the mutations of T95I, G142D, E154K, L452R, E484Q, D614G, P681R. 
Purity	> 90% as analyzed by SDS-PAGE
Endotoxin Level	< 0.2 EU/μg of protein by gel clotting method
Biological Activity	This protein is validated to bind with human ACE2 in functional ELISA assay.
Expression System	CHO
Theoretical Molecular Weight	75.7 kDa
Apparent Molecular Weight	~112 kDa, on SDS-PAGE under reducing conditions.
Formulation	Supplied as a solution in PBS, pH 7.4.
Concentration	Please refer to the COA for the specific lot.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at -20°C or below. Please avoid repeated freeze-thaw cycles.

Examples

GenScript USA, Inc.
860 Centennial Ave. Piscataway, NJ 08854
Tel: 1-732-885-9188



Immobilized ACE-2 Fc Chimera, Human (Cat. No. Z03516) at 2 μg/mL can bind SARS-CoV-2 Spike protein (S1, T95I, G142D, E154K, L452R, E484Q, D614G, P681R, His Tag) (Cat. No. Z03611) with a serial dilution.
THE™ His Tag Antibody [HRP], mAb, Mouse (Cat.No.A00612) is used as a secondary antibody (0.2 μg/mL).



Lane 1: 1μg of SARS-CoV-2 Spike protein (S1, T95I, G142D, E154K, L452R, E484Q, D614G, P681R, His Tag), reducing(R)
> 90% as analyzed by SDS-PAGE

Background

Target Background : SARS-CoV-2 (Severe Acute Respiratory Syndrome Coronavirus 2) also known as 2019-nCoV (2019 Novel Coronavirus) is a virus that causes illnesses ranging from the common cold to severe diseases. As of May 2021, three sublineages have been found. Despite its name, B.1.617.3 was the first sublineage of this variant to be detected, in October 2020 in India. This sublineage has remained relatively uncommon compared to the two other sublineages, B.1.617.1 (also known as variant Kappa) and B.1.617.2 (also known as variant Delta), both of which were first detected in December 2020. This variant has the double mutations E484Q and L452R in the spike proteins. Emerging research suggests the variant may be more transmissible than previously evolved ones. Whether the effectiveness of currently-deployed vaccines is affected remains under investigation. Moreover, the sublineage B.1.617.2 has been redesignated as "variant of concern" (VOC-21APR-02) in May 2021, which spreads more quickly than the original version of the virus.

Synonyms : Lineage B.1.617.1; variant Kappa; VUI-21APR-01

References :
1. Emergence of a novel SARS-CoV-2 strain in Southern California, USA.
2. New California Variant May Be Driving Virus Surge There, Study Suggests.
3. Neutralization of SARS-CoV-2 Variants B.1.429 and B.1.351.
4. Tracking SARS-CoV-2 variants.