

Rev01
 Update: Dec,21,2021

DATASHEET

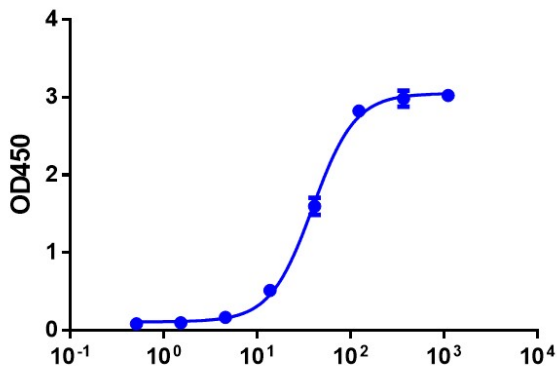
SARS-CoV-2 Spike protein RBD, Omicron Variant, His Tag

Cat. No.: Z03728

Product Introduction

Species	SARS-CoV-2
Protein Construction	Expressed with the mutations of G339D, S371L, S373P, S375F, K417N, N440K, G446S, S477N, T478K, E484A, Q493R, G496S, Q498R, N501Y, Y505H.
	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="background-color: #0056b3; color: white; padding: 5px; text-align: center;"> Spike RBD (Arg319-Phe541) Accession # P0DTC2 </div> <div style="background-color: #76b82a; color: white; padding: 5px; text-align: center;"> Poly-His </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> N-term C-term </div>
Purity	≥ 95% as analyzed by SDS-PAGE
Endotoxin Level	≤ 1 EU/μg of protein by LAL method.
Biological Activity	SARS-CoV-2 Spike protein RBD, Omicron Variant, His Tag can bind with human ACE2 in functional ELISA assay.
Expression System	Human Cells
Theoretical Molecular Weight	26.2 kDa
Apparent Molecular Weight	32-40 kDa, on SDS-PAGE under reducing conditions.
Formulation	Supplied as a 0.2 μm filtered solution of 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. Avoid repeated freeze-thaw cycles.

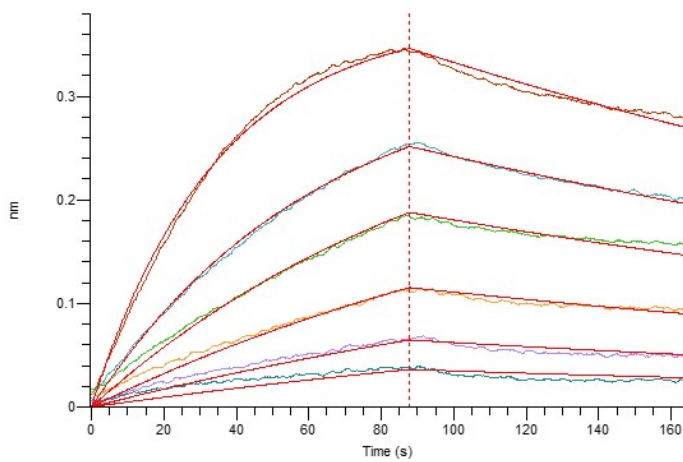
Examples



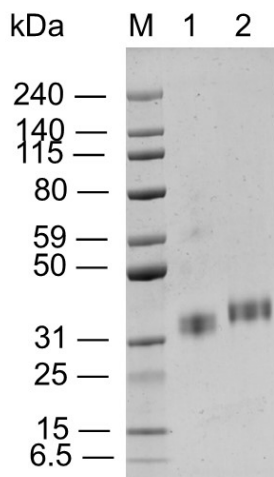
Immobilized ACE-2 Fc Chimera, Human at 2 µg/ml can bind SARS-CoV-2 Spike protein RBD, Omicron Variant, His Tag (Cat.No. Z03728) with a serial dilution.

THE™ His Tag Antibody [HRP], mAb, Mouse (Cat.No. A00612) is used as a secondary antibody (0.2 µg/ml).

B.1.1.529 Spike Protein RBD (ng/ml)



Loaded Human ACE-2, hFc on Protein A Biosensor, can bind SARS-CoV-2 Spike protein RBD, Omicron Variant, His Tag (Cat. No. Z03728) with an affinity constant of 6.32 nM as determined in BLI assay.



The purity is greater than 95% as determined by reducing 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. Recently, the new B.1.1.529 variant was confirmed in South Africa and preliminary evidence suggests an increased risk of reinfection with this variant. The B.1.1.529 variant was first reported to WHO on 24 November 2021 and WHO has designated this variant as a VOC (Variant of Concern), named Omicron. There are more than 30 mutations in the spike protein.

Synonyms : B.1.1.529; Omicron variant

References :

1. [Classification of Omicron \(B.1.1.529\): SARS-CoV-2 Variant of Concern.](#)
2. [Omicron: What Is Known — and Still Unknown.](#)

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.