Catalog: 101024

Lot: 210408

## **Product Information**

**Description:** 

This purified rabbit monoclonal antibody recognizes recombinant wildtype SARS-CoV-2 Spike RBD and trimeric spike proteins. Additionally, this antibody cross-reacts with the B.1.1.7 variant, originally discovered in the U.K, and the B.1.351 variant, originally discovered in South Africa, for both the Spike RBD and trimeric proteins. This neutralizing antibody impedes the interaction between SARS-CoV-2 spike proteins and ACE2 receptor. ACE2 receptor is known to mediate COVID-19 infection through direct binding of the SARS-CoV2 Spike protein. This neutralizing antibody has been functionally tested using BPS Bioscience Spike RBD: ACE2 Inhibitor Screening Kits (BPS Bioscience, #78018, #78133, #78152). This antibody not been tested for cross reactivity with other SARS-CoV-2 variants.

Concentration:0.5 mg/mlSpecies:RabbitClone:C-A11Isoform:IgG

Immunogen: SARS-CoV-2 Spike RBD

Formulated In: PBS

**Purification:** Protein A affinity chromatography

Format: Aqueous buffer solution

**Stability:** At least 6 months at 4°C. Avoid freeze/thaw cycles

**Storage:** 4°C **MW:** 150 kDa

**Assay Conditions:** Experimental design and assay protocol for measuring neutralizing

antibody's functional activity using BPS Spike S1 (B.1.1.7 Variant) (SARS-CoV-2): ACE2 Inhibitor Screening Colorimetric Assay Kit (BPS Bioscience,

#78155):

- 1. Coat flat bottom clear 96-well plate with 1  $\mu$ g/ml spike protein overnight at 4°C.
- 2. Next day, wash and block with blocking buffer for 1 hour at room temperature.
- 3. Wash and preincubate spike protein with serial dilutions of neutralizing antibody (suggested range: 50 nM to pM range) for 30 60 minutes at room temperature, with gentle shaking.
- 4. Wash and incubate with ACE2-biotin (BPS Bioscience, #100665) for 1 hour at room temperature.
- 5. Wash and add HRP-Streptavidin.
- 6. Wash and add colorimetric substrate. Quench reaction with 1N HCL after color development.
- 6. Read absorbance at 450 nm.

**Applications:** 

This product is for research use only. It is not suitable for human diagnostic or therapeutic use. The rabbit monoclonal neutralizing IgG can be used for functional assays testing inhibitors against SARS-CoV-2 Spike protein and ACE2 binding.



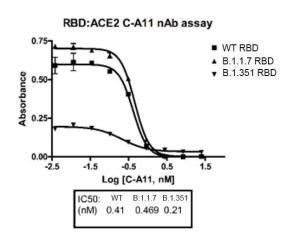
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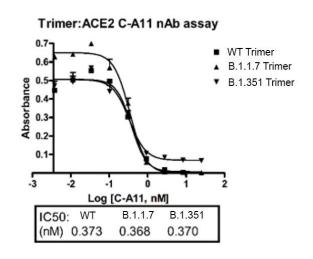
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**Quality Control Data** 

Neutralization of trimeric spike protein **RBD** variants and ACE2

Neutralization of spike protein **Trimer** variants and ACE2





Clone C-A11 mAb (BPS Bioscience, #101024) competes with and blocks binding of ACE2-biotin and spike RBD (wt: wildtype RBD; RBD variant B.1.1.7; RBD variant B.1.351). Assay was performed following the protocol for Spike RBD:ACE2 Inhibitor Screening Colorimetric Assay kits for each RBD variant (BPS Bioscience, #78018, #78133, #78152) with 1  $\mu$ g/ml RBD protein, and 5 nM ACE2-biotin.

C-A11 mAb blocks the binding of Spike trimeric variants and ACE2-biotin. The assay was performed by coating plates with 1  $\mu$ g/ml Spike trimeric proteins in a cell-free colorimetric assay, followed by incubation with C-A11 (serial dilutions) and 5 nM ACE2-biotin.