



碧云天生物技术/Beyotime Biotechnology  
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## SARS-COV-2 RBD Neutralizing Antibody (Human IgG1)

| 产品编号         | 产品名称  | 包装    |
|--------------|---|-------|
| AF0512-50μg  | SARS-COV-2 RBD Neutralizing Antibody (Human IgG1) | 50μg  |
| AF0512-200μg | SARS-COV-2 RBD Neutralizing Antibody (Human IgG1) | 200μg |
| AF0512-1mg   | SARS-COV-2 RBD Neutralizing Antibody (Human IgG1) | 1mg   |

### 产品简介:

| 来源    | 用途           | 交叉反应性                  | 理论分子量  | 实际分子量   |
|-------|--------------|------------------------|--------|---------|
| Human | Neutralizing | SARS-CoV-2 (2019-nCoV) | 140kDa | ~180kDa |

WB, Western blot; IP, Immunoprecipitation; IF, Immunofluorescence; IHC, Immunohistochemistry; ICC, Immunocytochemistry; FC, Flow Cytometry; ChIP, Chromatin Immunoprecipitation Assay; ChIP-seq, ChIP-sequencing.

H, Human; M, Mouse; R, Rat; C, Chicken; Cw, Cow; Dg, Dog; Gp, Guinea pig; Hm, Hamster; Hr, Horse; Mk, Monkey; Pg, Pig; Rb, Rabbit; S, Sheep; Z, Zebrafish; All, all species expected.

- 建议抗体使用时的稀释比如下(实际使用时需根据抗原水平的高低作适当调整):

| WB | IP | IF | IHC | ICC | FC | ChIP | ELISA |
|----|----|----|-----|-----|----|------|-------|
| -  | -  | -  | -   | -   | -  | -    | -     |

- 抗体详细信息如下:

| About this Antibody |   |
|---------------------|---|
| Name                | SARS-COV-2 RBD Neutralizing Antibody (Human IgG1)   |
| Category            | Primary Antibody  |
| Isotype             | Human/IgG1  |
| Purification method | Protein A   |
| Buffer solution     | PBS, pH7.4  |
| Specificity         | This antibody recognizes 2019-nCoV S Protein/2019-nCoV S-RBD Protein and block ACE-2 receptor binding. <b>Note:</b> This antibody's applications have not been validated with corresponding viruses. Optimal concentrations/dilutions should be determined by the end user. |

| About the Immunogen |  |
|---------------------|--|
| Immunogen           | -  |
| Sequence            | -  |
| Gene ID             | 43740568   |
| Swiss Prot          | -  |
| Synonyms            | RBD domain of SARS-CoV-2 Spike protein, SARS-CoV-2 Spike Protein S1 RBD, RBD domain of S-surface glycoprotein  |
| Category            | Anti-infection   |
| 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. Spike Protein, the main surface antigen of the coronavirus, is a ~180kD glycoprotein that crucial for viral fusion and entry into the host cells. It is a homotrimeric, consisting of two subunits, S1 and S2. In SARS-CoV-2, proteolytic cleavage of spike protein into S1 and S2 subunits is required for its activation. The first step of coronavirus infection of virus is the interaction of the spike protein to certain receptors on host cells. The S1 subunit is focused on attachment of the protein to the receptor while the S2 subunit is involved with membrane fusion. The receptor binding domain (RBD) locates in the C-terminal region of S1, and it binds to Angiotensin-Converting Enzyme 2 (ACE2) of host cells with high affinity and |

fast binding kinetic. Blocking the interaction between ACE2 and RBD inhibits the viral infection. RBD-specific antibodies have been shown to inhibit the attachment of RBD to ACE2-expressing cells, suggesting RBD as a potential target for vaccinations or therapy of SARS-CoV-2 infection. This product is isolated from a SARS-CoV-2 infected patient and is recombinantly produced from HEK293. This antibody recognizes the SARS-CoV-2 Spike Protein RBD domain and inhibits the interaction between SARS-CoV-2 RBD and ACE2.

#### ➤ 本抗体的相关数据：

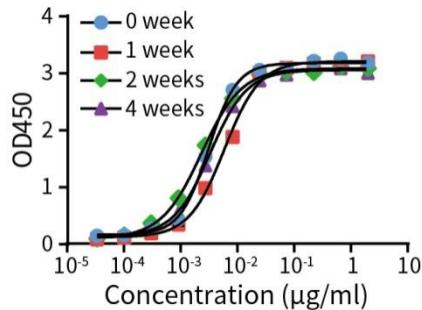


Figure 1. The antibody stability at room temperature was calculated by functional ELISA. Immobilized Recombinant 2019-nCoV Spike Protein RBD (新型冠状病毒 S 蛋白 RBD 区域) (P2331) at 100ng/well can bind SARS-COV-2 RBD Neutralizing Antibody (Human IgG1). After storing at room-temperature for 1 week, 2 weeks or 4 weeks, the EC50 of this antibody showed no significant change.

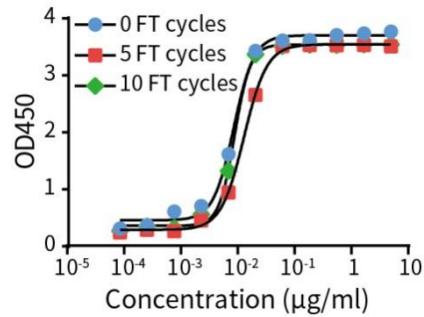


Figure 2. The repeated freeze-thaw (FT) stability was determined by functional ELISA. Immobilized 2019-nCoV Spike Protein RBD (新型冠状病毒 S 蛋白 RBD 区域) (P2331) at 100ng/well can bind SARS-COV-2 RBD Neutralizing Antibody (Human IgG1). After 10 freeze-thaw cycles, the EC50 of this antibody showed no significant change.

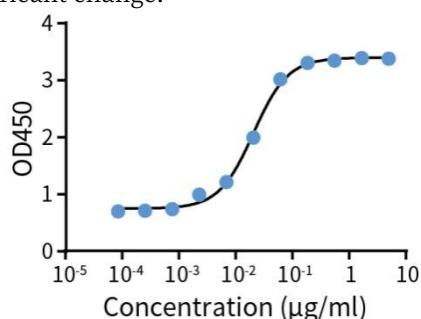


Figure 3. Immobilized 2019-nCoV Spike Protein RBD (新型冠状病毒 S 蛋白 RBD 区域) (P2331) at 100ng/well can bind SARS-COV-2 RBD Neutralizing Antibody (Human IgG1), and the EC50 is less than 0.02 $\mu\text{g/ml}$ .

#### 包装清单：

| 产品编号                     | 产品名称  | 包装                |
|--------------------------|---|-------------------|
| AF0512-50 $\mu\text{g}$  | SARS-COV-2 RBD Neutralizing Antibody (Human IgG1) | 50 $\mu\text{g}$  |
| AF0512-200 $\mu\text{g}$ | SARS-COV-2 RBD Neutralizing Antibody (Human IgG1) | 200 $\mu\text{g}$ |
| AF0512-1mg               | SARS-COV-2 RBD Neutralizing Antibody (Human IgG1) | 1mg               |
| —                        | 说明书   | 1份                |

#### 保存条件：

SARS-COV-2 RBD Neutralizing Antibody (Human IgG1) 4°C保存，至少一年有效。短期内不使用，推荐-20°C保存，-20°C可以保存更长时间。

#### 注意事项：

➤ 如果本抗体用于Western blot (WB)、免疫荧光(IF)、免疫细胞化学(ICC)等实验，请注意回收使用过的稀释抗体。回收的抗体通

常至少可以重复使用5-10次。稀释后的抗体，包括已经使用过的稀释抗体，请4°C保存。

- 回收后重复使用的抗体，使用方法同新鲜稀释的抗体。如果在重复使用过程中发现抗体出现轻微混浊现象，可以 $10,000 \times g$ 离心1-3分钟，取上清用于后续检测。如果回收的抗体出现明显的絮状物或长霉长菌等情况，则可以考虑废弃该抗体。
- 本产品仅限于专业人员的科学的研究用，不得用于临床诊断或治疗，不得用于食品或药品，不得存放于普通住宅内。
- 为了您的安全和健康，请穿实验服并戴一次性手套操作。

## 使用说明：

请根据抗体的实际用途选择相应的使用方法。

### 1. Western检测：

- a. 按照推荐的稀释比例用碧云天提供的Western一抗稀释液稀释抗体。
- b. 把经过封闭的蛋白膜与稀释好的一抗4°C缓慢摇动过夜或室温缓慢摇动2小时，确保稀释的抗体至少能在摇动的瞬间覆盖蛋白膜。
- c. 回收稀释的一抗，4°C保存以备下次继续使用。
- d. 按照Western的实验步骤进行后续的洗涤、二抗孵育、洗涤和检测等操作。具体操作可以参考如下网页：  
<http://www.beyotime.com/support/western.htm>

### 2. 免疫染色：

可以使用碧云天生产的免疫染色一抗稀释液(P0103)稀释抗体，使用后注意回收稀释好的一抗，具体操作可以参考如下网页：<http://www.beyotime.com/support/immunol-staining.htm>

### 3. 其它实验操作请自行参考适当的protocol进行。

## 相关产品：

| 产品编号         | 产品名称  | 包装    |
|--------------|---|-------|
| AF0501-50μg  | SARS-CoV-2 N Protein Human Monoclonal Antibody (Clone B1)           | 50μg  |
| AF0501-200μg | SARS-CoV-2 N Protein Human Monoclonal Antibody (Clone B1)           | 200μg |
| AF0501-1mg   | SARS-CoV-2 N Protein Human Monoclonal Antibody (Clone B1)           | 1mg   |
| AF0503-50μg  | SARS-CoV-2 N Protein Human Monoclonal Antibody (Clone B2)           | 50μg  |
| AF0503-200μg | SARS-CoV-2 N Protein Human Monoclonal Antibody (Clone B2)           | 200μg |
| AF0503-1mg   | SARS-CoV-2 N Protein Human Monoclonal Antibody (Clone B2)           | 1mg   |
| AF0507-50μg  | SARS-CoV-2 Spike Protein (RBD) Human Monoclonal Antibody (Clone B7) | 50μg  |
| AF0507-200μg | SARS-CoV-2 Spike Protein (RBD) Human Monoclonal Antibody (Clone B7) | 200μg |
| AF0507-1mg   | SARS-CoV-2 Spike Protein (RBD) Human Monoclonal Antibody (Clone B7) | 1mg   |
| AF0509-50μg  | SARS-CoV-2 Spike Protein (RBD) Human Monoclonal Antibody (Clone B3) | 50μg  |
| AF0509-200μg | SARS-CoV-2 Spike Protein (RBD) Human Monoclonal Antibody (Clone B3) | 200μg |
| AF0509-1mg   | SARS-CoV-2 Spike Protein (RBD) Human Monoclonal Antibody (Clone B3) | 1mg   |
| AF0512-50μg  | SARS-CoV-2 RBD Neutralizing Antibody (Human IgG1)                   | 50μg  |
| AF0512-200μg | SARS-CoV-2 RBD Neutralizing Antibody (Human IgG1)                   | 200μg |
| AF0512-1mg   | SARS-CoV-2 RBD Neutralizing Antibody (Human IgG1)                   | 1mg   |
| AF0325       | SARS-CoV-2 N Protein Polyclonal Antibody                            | 50μl  |
| AF2335-50μl  | Angiotensin Converting Enzyme 2 Rabbit Monoclonal Antibody          | 50μl  |
| AF2335-200μl | Angiotensin Converting Enzyme 2 Rabbit Monoclonal Antibody          | 200μl |

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