

PRODUCT INFORMATION

Anti-Spike (RBD) Antibody_AK3399

Description:

InVivo offers a series of different monoclonal antibodies for the detection of the Spike protein from SARS-CoV-2. All antibodies come from hybridoma cell lines that were generated by immunization with the recombinant full-length Spike protein (S) or the receptor-binding domain (RBD).

This antibody has been validated by ELISA and is specifically directed against an epitope that is located on the RBD. Additionally, ELISAs with directly coated antigens proved that this antibody also binds to Spike protein B.1.1.7 and different RBD variants (B.1.1.7, B.1.1.28.1, B.1.1.7 E484K and B.1.351).

It is also recommended and independently tested for use in sandwich ELISA assays.

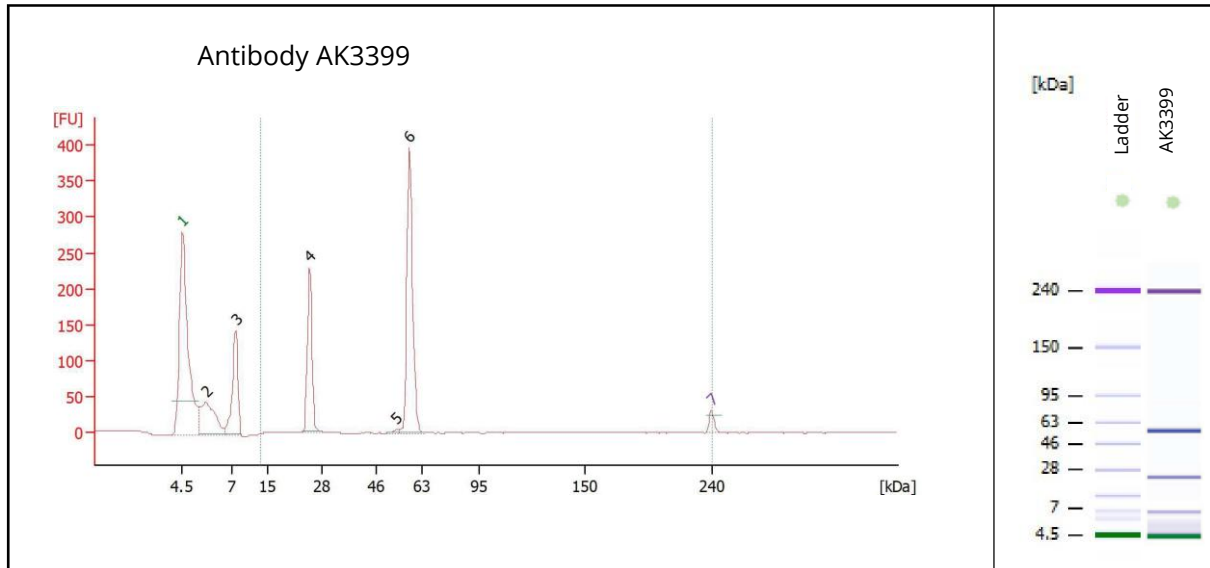
All antibodies are produced exclusively under serum-free conditions from hybridoma and purified through one-step purification with Protein-A affinity chromatography.

| | |
|------------------------------|--|
| Product-ID: | AK3399 |
| Host: | Mouse |
| Clonality: | Monoclonal |
| Isotype: | IgG |
| Subclass: | mIgG2bk |
| Formulation: | Liquid, PBS, pH 7.4, 0.2 µm sterile filtered |
| Concentration: | ≥ 0.5 mg/ mL |
| Purity: | ≥ 90% (via analytical CGE under reducing conditions) |
| Conjugate: | Unconjugated |
| EC₅₀ RBD*: | 2.353 nM |
| EC₅₀ S1*: | 1.321 nM |
| EC₅₀ S*: | 0.378 nM |
| Specificity: | S (tested for: Wuhan and B.1.1.7) RBD (tested for: Wuhan, B.1.1.7, B.1.1.28.1, B.1.1.7 E484K and B.1.351) |

*EC₅₀ values for 20 nM of coated antigen (Wuhan origin)

The product is for research use or for further manufacturing only.

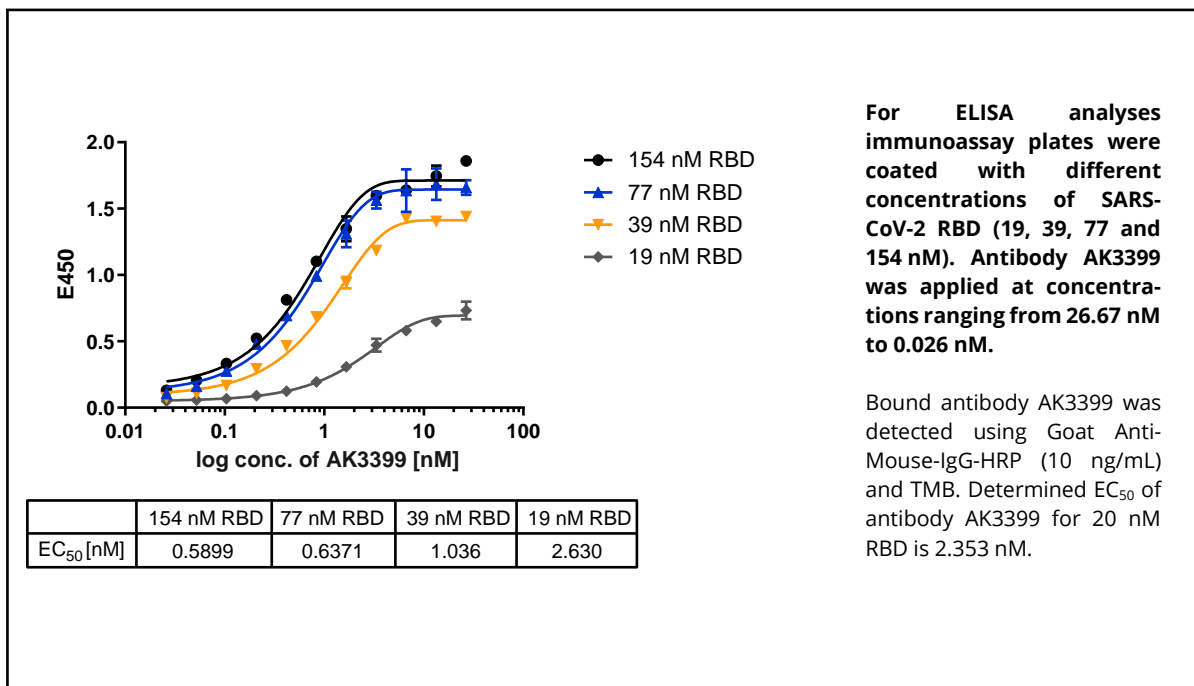
Purity (analytical CGE, under reducing conditions):

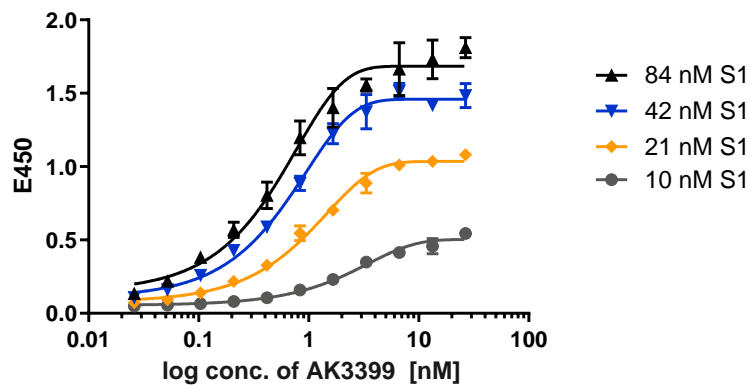


| Peak | Size [kDa] | % of Total | Observations |
|------|------------|--------------|--------------|
| 1 | 4.5 | 0.0 | Lower Marker |
| 2 | 5.7 | 0.0 | System Peak |
| 3 | 7.8 | 0.0 | System Peak |
| 4 | 25.1 | Peak Value 1 | Light Chain |
| 5 | 53.5 | 0.0 | |
| 6 | 58.4 | Peak Value 2 | Heavy Chain |
| 7 | 240.0 | 0.0 | Upper Marker |

Summation of peak values 1 and 2 results in a purity of $\geq 90\%$

Protein Activity (ELISA):

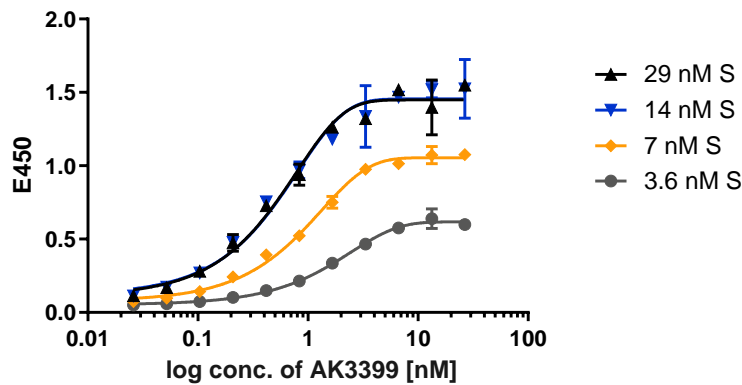




For ELISA analyses immunoassay plates were coated with different concentrations of SARS-CoV-2 S1 (10, 21, 42 and 84 nM). Antibody AK3399 was applied at concentrations ranging from 26.67 nM to 0.026 nM.

Bound antibody AK3399 was detected using Goat Anti-Mouse-IgG-HRP (10 ng/mL) and TMB. Determined EC_{50} of antibody AK3399 of 20 nM S1 is 1.321 nM.

| | 84 nM S1 | 42 nM S1 | 21 nM S1 | 10 nM S1 |
|----------------|----------|----------|----------|----------|
| EC_{50} [nM] | 0.5005 | 0.6470 | 1.018 | 3.018 |



For ELISA analyses immunoassay plates were coated with different concentrations of SARS-CoV-2 Spike protein (3.6, 7, 14 and 29 nM). Antibody AK3399 was applied at concentrations ranging from 26.67 nM to 0.026 nM.

Bound antibody AK3399 was detected using Goat Anti-Mouse-IgG-HRP (10 ng/mL) and TMB. Determined EC_{50} of antibody AK3399 for 20 nM Spike protein is 0.378 nM.

| | 29 nM S | 14 nM S | 7 nM S | 3.6 nM S |
|----------------|---------|---------|--------|----------|
| EC_{50} [nM] | 0.5090 | 0.5053 | 0.9114 | 1.741 |

Binding activity to SARS-CoV-2 Spike protein and receptor-binding domain variants (ELISA):

