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.

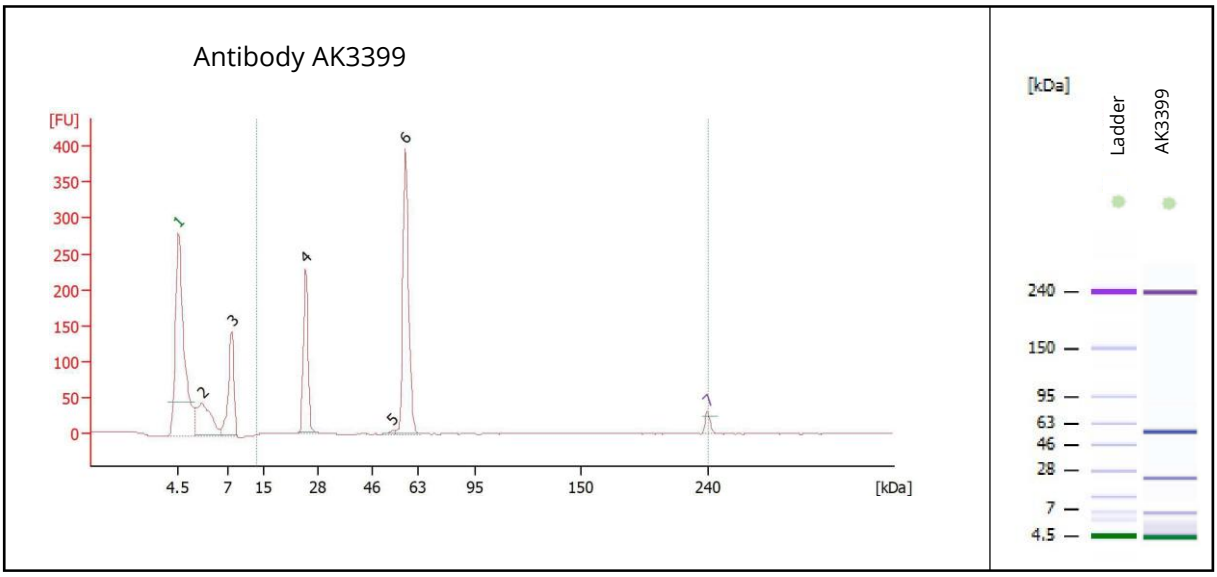
All antibodies are produced exclusively under serum-free conditions from hybridoma and purified through one-step purification with Protein-A affinity chromatography.

Product-ID:	AK3399
Host:	Mouse
Clonality:	Monoclonal
Isotype:	IgG
Subclass:	mIgG2bκ
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
EC_{50} RBD*:	2.353 nM
EC_{50} S1*:	1.321 nM
EC_{50} S*:	0.378 nM

*EC_{50} values for 20 nM of coated antigen

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

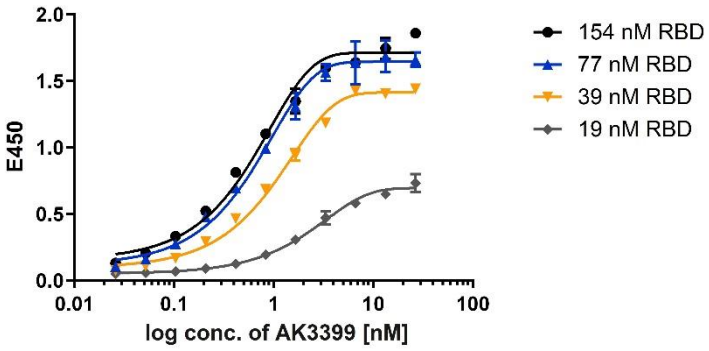
Purity (analytical CGE, under reducing conditions):



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 ≥ 90%

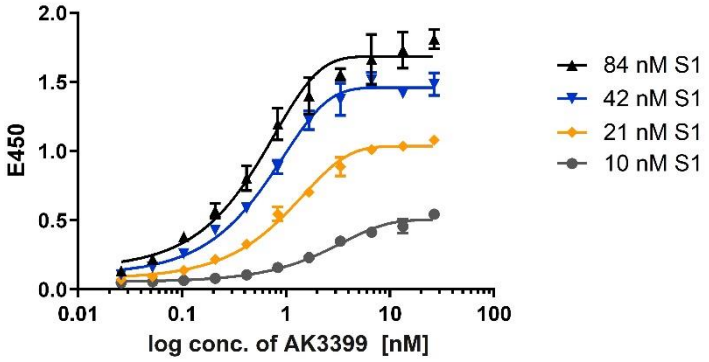
Protein Activity (ELISA):



	154 nM RBD	77 nM RBD	39 nM RBD	19 nM RBD
EC_{50} [nM]	0.5899	0.6371	1.036	2.630

For ELISA analyses immunoassay plates were coated with different concentrations of SARS-CoV-2 RBD (19, 39, 77 and 154 nM). Antibody AK3399 was applied at concentrations ranging from 26.67 nM to 0.026 nM.

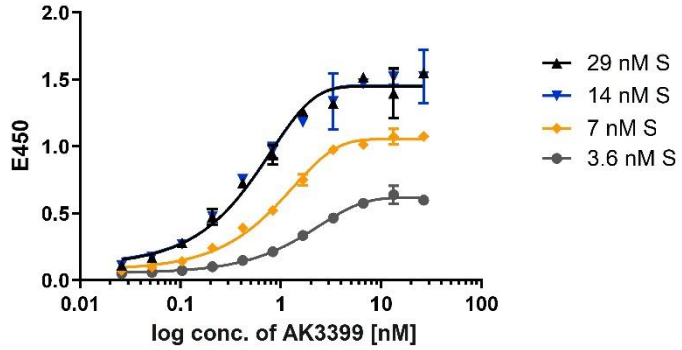
Bound antibody AK3399 was detected using Goat Anti-Mouse-IgG-HRP (10 ng/mL) and TMB. Determined EC_{50} of antibody AK3399 for 20 nM RBD is 2.353 nM.



	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 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 for 20 nM S1 is 1.321 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

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.