SARS-CoV-2 Spike Neutralizing Antibody, Mouse MAb

Catalog Number: **40591-MM45**

GENERAL INFORMATION	
Immunogen:	Recombinant SARS-CoV-2 Spike S1 Protein (Catalog#40591-V05H1)
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant SARS-CoV-2 Spike (Catalog#40591-V05H1; YP_009724390.1; Val16-Arg685). The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Clone ID:	45
Ig Type:	Mouse IgG1
Concentration	> 1 mg/mL
Purity	> 90 % as determined by SDS-PAGE. > 90 % as determined by SEC-HPLC.
Endotoxin	< 3 EU/mg
Neutralization	The neutralization activity is measured by microneutralization assay in vitro. The virus microneutralizaiton (MN) test was performed on 293T-ACE2 cells infected with SARS-CoV-2 Spike Pseudovirus (WT, Cat# PSV001), or SARS-CoV-2 Spike Omicron (B.1.1.529) Pseudovirus (Cat# PSV016), or SARS-CoV-2 Delta (B.1.617.2) variant Spike Pseudovirus (Cat# PSV011), under treatment of serial dilutions of neutralizing antibody. The infection was neutralized by increasing concentrations of Anti-SARS-CoV-2 Neutralizing Antibody (Catalog# 40591-MM45). Rate of inhibition was determined by comparing the Relative Light Unit (RLU) of Luciferase reporter in different antibody concentrations. IC_{50}(WT)is 0.28 μg/mL. IC50(Omicron) is 5.19 μg/mL. IC_{50}(Delta) is 1.71 μg/mL.
Formulation:	0.2 μm filtered solution in PBS
Storage:	This antibody can be stored at 2℃-8℃ for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20℃ to -80℃. Preservative-Free. Avoid repeated freeze-thaw cycles.

APPLICATIONS	
Applications:	ELISA,Neutralization
	(Antibody's applications have not been validated with corresponding viruses. Optimal concentrations/dilutions should be determined by the end user.)

RECOMMENDED CONCENTRATION	
ELISA	ELISA: 0.5-1 μg/mL

Please Note: Optimal concentrations/dilutions should be determined by the end user.

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Specificity (ELISA)	**SARS-CoV-2 Spike RBD Protein (Could't block ACE2)** **Has cross-reactivity in ELISA with** SARS-CoV-2 Omicron (LP.8.1) Spike S1+S2 trimer Protein (Cat# 40589-V08H69) SARS-CoV-2 Omicron (KP.3.1.1) Spike S1+S2 trimer Protein (Cat# 40589-V08H63) SARS-COV-2 Omicron (KP.3) Spike S1+S2 trimer Protein (Cat# 40589-V08H64) SARS-CoV-2 (XEC) Spike S1+S2 trimer Protein (Cat# 40589-V08H62) SARS-CoV-2 Omicron (XBB.1.16) Spike S1+S2 trimer Protein (Cat# 40589-V08H48) SARS-CoV-2 Omicron (XBB.1.5) Spike RBD Protein (Cat# 40592-V08H146) SARS-CoV-2 Omicron (XBB.1.5) Spike S1+S2 trimer Protein (Cat# 40589-V08H45) SARS-CoV-2 Omicron (XBB.1) Spike S1+S2 trimer Protein (Cat# 40589-V08H42) SARS-CoV-2 Omicron (XBB) Spike RBD Protein (Cat# 40592-V08H144) SARS-CoV-2 Omicron (BQ.1.1) Spike S1+S2 trimer Protein (Cat# 40589-V08H41) SARS-CoV-2 Omicron (BQ.1.1) Spike RBD Protein (Cat# 40592-V08H143) SARS-CoV-2 Omicron (BF.7) Spike S1+S2 trimer Protein (Cat# 40589-V08H39) SARS-CoV-2 Omicron (BA.4.6/BF.7) Spike RBD Protein (Cat# 40592-V08H140) SARS-CoV-2 Omicron (BA.4.6) Spike S1+S2 trimer Protein (Cat# 40589-V08H37) SARS-CoV-2 Omicron (BA.2.75) Spike RBD Protein (Cat# 40592-V08H135) SARS-CoV-2 Omicron (BA.2.75) Spike S1+S2 trimer Protein (Cat# 40589-V08H36) SARS-CoV-2 Omicron (BA.2.75.2) Spike RBD Protein (Cat# 40592-V08H141) SARS-CoV-2 Omicron (BA.2.75.2) Spike S1+S2 trimer Protein (Cat# 40589-V08H38) SARS-CoV-2 Omicron (BA.2.3.20) Spike RBD Protein (Cat# 40592-V08H142) SARS-CoV-2 Omicron (BA.1.1) Spike S1+S2 trimer Protein (Cat# 40589-V08H29) SARS-CoV-2 Omicron (B.1.1.529) S1+S2 trimer Protein (Cat# 40589-V08H26) SARS-CoV-2 Omicron (B.1.1.529) Spike S1 Protein (Cat# 40591-V08H41) SARS-CoV-2 Omicron (B.1.1.529) Spike RBD Protein (Cat# 40592-V08H121) SARS-CoV-2 Delta (B.1.617.2) Spike S1+S2 trimer Protein (Cat# 40589-V08H10) SARS-CoV-2 Delta (B.1.617.2) Spike S1+S2 Protein (Cat# 40589-V08B16) SARS-CoV-2 Delta (B.1.617.2) Spike S1 Protein (Cat# 40591-V08H23) SARS-CoV-2 Delta (B.1.617.2) Spike RBD Protein (Cat# 40592-V08H90) SARS-CoV-2 Spike S1 Protein (Cat# 40591-V05H1) **Medium cross-reactivity in ELISA with** SARS-CoV-2 Omicron (BA.1.1) Spike RBD Protein (Cat# 40592-V08H129) SARS-CoV-2 Omicron (BA.2) Spike S1+S2 trimer Protein (Cat# 40589-V08H28) SARS-CoV-2 Omicron (BA.2) Spike S1 Protein (Cat# 40591-V08H43) SARS-CoV-2 Omicron (BA.2.12.1) Spike RBD Protein (Cat# 40592-V08H132) SARS-CoV-2 XD(BA.1 x AY.4) Spike S1+S2 trimer Protein (Cat# 40589-V08H30) **Minimal cross-reactivity in ELISA with** SARS-CoV-2 Omicron (BA.2) Spike RBD Protein (Cat# 40592-V08H123) SARS-CoV-2 Omicron (BA.4) Spike RBD Protein (Cat# 40592-V08H130) SARS-CoV-2 Omicron (BA.5) Spike RBD Protein (Cat# 40592-V08H131) **No cross-reactivity in ELISA with** SARS-CoV-2 Omicron (BA.2) Spike S1 NTD Protein (Cat# 40591-V08H44) SARS-CoV-2 Delta (B.1.617.2) Spike S1 NTD Protein (Cat# 40591-V08H36)

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WT		Omicron		Delta	
Conc. (μg/mL)	**Inhibition%**	**Conc. (μg/mL)**	**Inhibition%**	**Conc. (μg/mL)**	**Inhibition%**
300	97.03%	300	88.03%	300	98.65%
100	89.84%	100	78.69%	100	90.27%
20	83.16%	20	64.69%	4	61.22%
4	68.39%	4	47.15%	0.8	40.04%
0.32	34.16%	0.16	36.02%	0.032	33.87%
0.0064	21.85%	0.0064	20.68%	0.0064	25.71%

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