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### Research Grade Anti-SARS-CoV-2 Spike Protein/RBD Broad-Neutralizing Antibody (002-S21F2)

<b>Catalog No.</b>	DVV00332A DVV00332B	<b>Quantity:</b>	100 µg 1.0 mg
<b>Alternate Names:</b>	Spike glycoprotein, Spike receptor binding domain, Spike-RB protein, S2E12		
<b>Description:</b>	<p>Recombinant Human anti-SARS-CoV-2 Spike-RBD (002-S21F2) is expressed in XtenCHO. This receptor-binding domain (RBD) targeting human antibody (002-S21F2) effectively neutralizes live viral isolates of SARS-CoV-2 variants of concern (VOCs) including Alpha, Beta, Gamma, Delta, and Omicron (BA.1 and BA.2) with IC<sub>50</sub> ranging from 0.02 – 0.05 µg/ml.</p> <p>This antibody was isolated by screening COVID-19-recovered individuals who had experienced mild symptoms after the ancestral Wuhan strain (WA.1) transmission in the year 2020. Antibody 002-S21F2 was the most potent mAb that neutralized live SARS-CoV-2 WA.1. Antibody 002-S21F2 has unique genetic features distinct from any reported SARS-CoV-2 mAbs. Structural studies of the full-length IgG in complex with spike trimers (Omicron and WA.1) reveal that 002-S21F2 recognizes an epitope on the outer face of RBD (class-3 surface), outside the ACE2 binding motif which enable it to overcome mutations found in the Omicron variants.</p>		
<b>UniProt ID (target):</b>	P0DTC2		
<b>Origin:</b>	Derived from a convalescing COVID-19 patient's plasma		
<b>Specificity:</b>	Recognizes SARS-CoV-2 Spike-RBD, Spike glycoprotein, S glycoprotein, E2, Peplomer protein, Spike protein S1, S, Alpha, Beta, Gamma, Delta, and Omicron variants.		
<b>Source:</b>	XtenCHO		
<b>Purity:</b>	> 95% by reduced and non-reduced SDS-PAGE		
<b>Isotype:</b>	Human IgG1		
<b>Clone:</b>	002-S21F2		
<b>Concentration:</b>	1.0 mg/ml, lot specific		
<b>Formulation:</b>	Sterile-filtered 0.01M PBS, pH 7.4 preservative free.		
<b>Purification:</b>	Protein A affinity chromatography		
<b>Endotoxin:</b>	< 0.01 EU/µg by LAL analysis		
<b>Binding Assay EC50:</b>	BA.2 RBD	19.21 ng/ml	
	Omicron RBD	26.48 ng/ml	
	XBB RBD	6.862 µg/ml	
<b>Applications:</b>	<b>Neutralization, Functional Assays</b>		
<b>Storage &amp; Stability:</b>	Stable at 2-8°C for 1 week or for up to 1 year at -20°C to -80°C. It is recommended to prepare single-use aliquots of undiluted product and store -20°C to -80°C. <b>Avoid repeated freeze/thaw cycles.</b>		

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