SARS-CoV2 CR3-C2 human neutralizing mAb

www.abwizbio.com
Support: info@abwizbio.com
Order: sales@abwizbio.com

Catalog: #2830 **Store at:** -20ºC

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Detection	Clonality	Isotype
Functional Assay,ELISA	Anti-SARS-CoV-2 mAb	Monoclonal	Human IgG1k

Format: Unconjugated

Cross Reactivity: No

Formulation: 1X PBS

Preparation: Protein A

Reactivity: Other

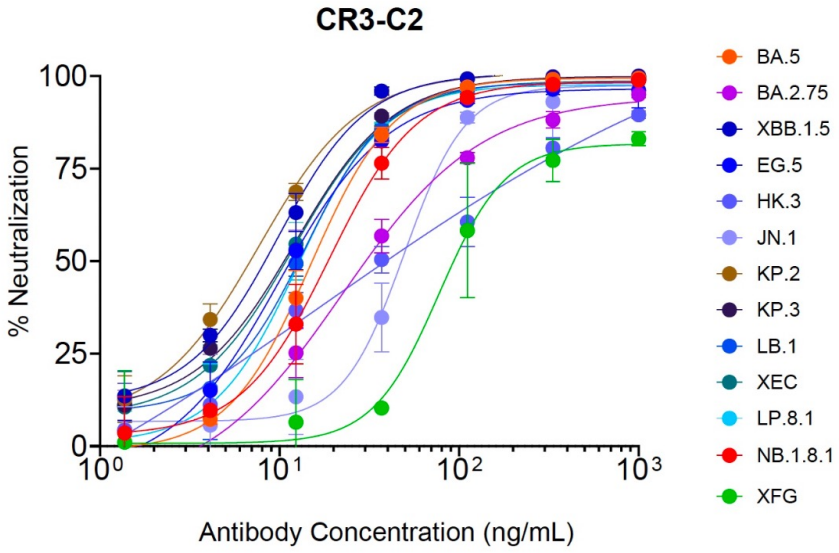
Recommended Usage: For flow cytometric staining, the suggested use of this reagent is 5 µL per million cells or 5 µL per 100 µL of staining volume. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.

Immunogen: A recombinant SARS-CoV-2 spike protein containing RBD.

Description:

References:

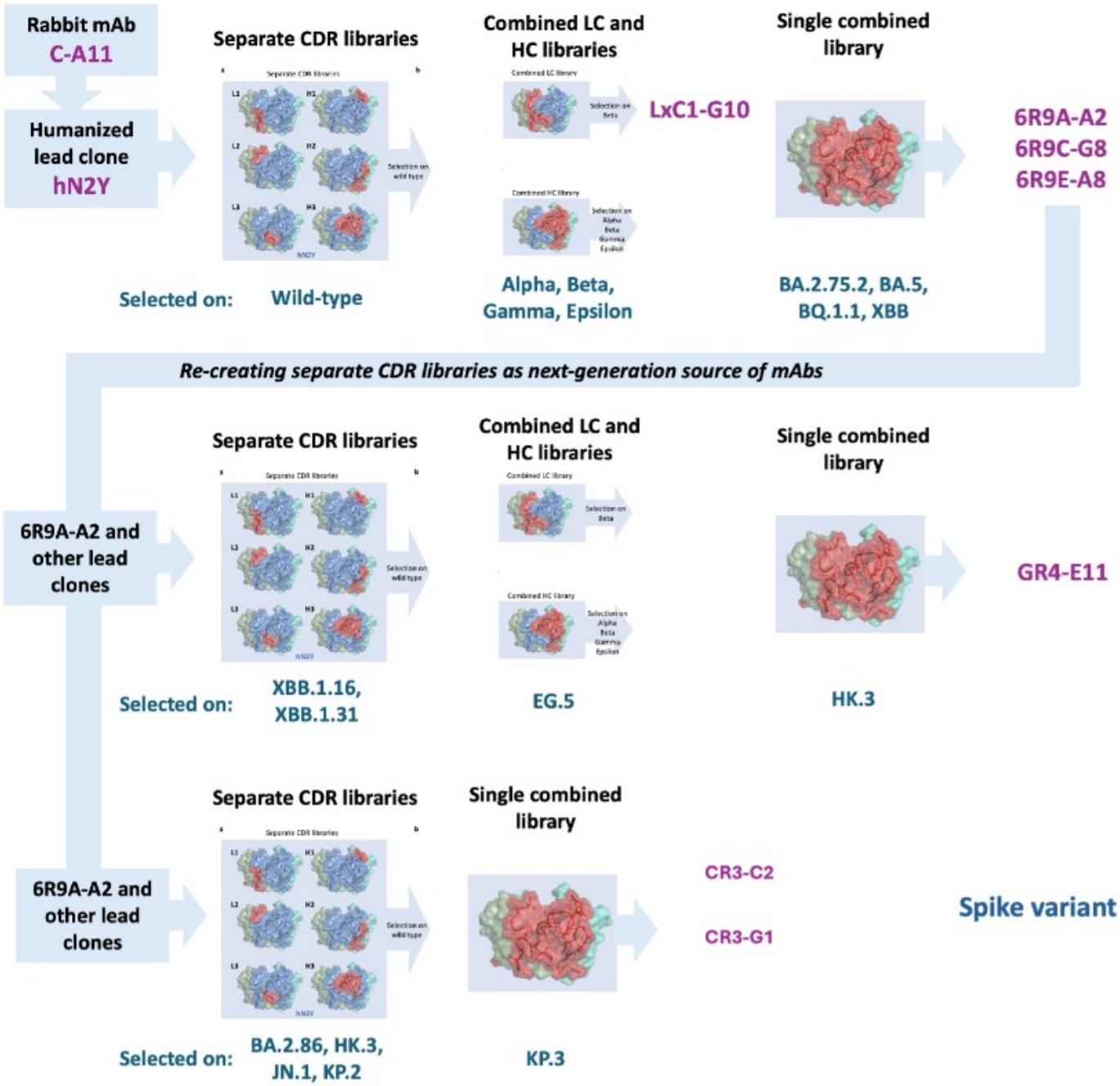
Abwiz Bio. (n.d.). SARS-CoV2 CR3-C2 human neutralizing mAb (SKU#2830). Retrieved from [Abwiz Bio product page for CR3C2] (While a direct URL for SKU#2830 was not found in the search results, the product “SARS-CoV2 CR3-C2 human neutralizing mAb” is listed and details about its functional assay are provided. For a specific link, please refer to the Abwiz Bio website product catalog.)
Abwiz Bio. (n.d.). Antibody Humanization Service. Retrieved from https://www.abwizbio.com/antibody-humanization-and-optimization/
Abwiz Bio. (n.d.). Antibody Affinity Maturation Services. Retrieved from https://www.abwizbio.com/antibody-affinity-maturation/
Jing, X., et al. (2023). Rapid engineering of SARS-CoV-2 therapeutic antibodies to increase breadth of neutralization including BQ.1.1, CA.3.1, CH.1.1, XBB.1.16, and XBB.1.5. EMBO Molecular Medicine, 15(7), e16828. (This article, while not directly featuring CR3C2 by name, discusses Abwiz Bio’s STEM technology for engineering broadly neutralizing antibodies against Omicron variants, which aligns with the description of CR3C2.)
Shi, R., et al. (2022). Human neutralizing antibodies for SARS-CoV-2 prevention and immunotherapy. Immunotherapy Advances, 2(1), ltab027. (Provides a general overview of human neutralizing antibodies for SARS-CoV-2.)

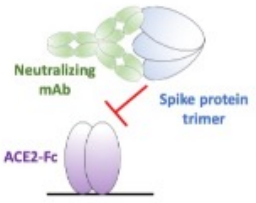


IC50 (ng/mL)

	BA.5	BA.2.75	XBB.1.5	EG.5	HK.3	JN.1	KP.2	KP.3	LB.1	XEC	LP.8.1	NB.1.8.1	XFG
Cat #	2688	2664	2712	2764	2772	2780	2800	2804	2812	2826	2834	2838	2842
CR3-C2	15	22	10	10	18	50	8	12	14	12	13	19	78

Surrogate virus neutralization test (sVNT): ACE2 protein (Cat#2566) was coated at 2 ug/mL. CR3-C2 was serially diluted and incubated with 48 ng/mL of spike trimers at room temperature for 1 hour. The mixture was then added to blocked wells and incubated at room temperature for 1 hour. Bound spike trimers were detected with HRP-conjugated anti-His tag antibody (Jackson ImmunoResearch #300-035-240). The percentage of neutralization by the antibody was calculated along with IC50 values to determine the efficacy of neutralization.





Surrogate virus neutralization test

IC_{50} (ng/mL)

Abwiz mAb evolution

SARS-CoV-2 evolution

Date First Detected	Date Isolated	Cat#	20-Oct C-A11	20-Nov hN2Y	21-Apr LxC1-G10	22-Nov 6R9A-A2	23-Aug HxB10	23-Oct GR4-E11	24-Nov CR3-G1	24-Nov FR3-A7	24-Nov CR3-C2
	Cat#		2536		2551						2830
19-Dec	Wuhan-Hu-1	2720	10	19	7	10	11	16	>1000	>1000	>1000
20-Feb	Beta	2652	ND	125	11	6	ND	26	1000	230	>1000
20-Mar	Delta	2611	12	20	18	11	24	20	>1000	>1000	>1000
20-Jul	BA.5	2688	>1000	>1000	636	9	ND	ND	20	33	15
21-Dec	BA.2.75	2664	10	39	14	11	ND	ND	27	136	22
22-Oct	XBB.1.5	2712	>1000	>1000	>1000	15	14	21	17	40	10
23-Feb	EG.5	2764	ND	>1000	>1000	>1000	11	14	247	18	10
23-Jun	HK.3	2772	ND	ND	ND	>1000	>1000	60	>1000	172	18
23-Aug	JN.1	2780	ND	ND	ND	ND	50	11	129	113	50
24-Jan	KP.2	2800	ND	>1000	>1000	>1000	>1000	14	ND	ND	8
24-Feb	KP.3	2804	ND	>1000	>1000	>1000	ND	>1000	13	30	12
24-Feb	LB.1	2812	ND	ND	ND	ND	>1000	233	15	30	14
24-Jun	XEC	2826	>1000	>1000	>1000	>1000	>1000	~200	15	30	12
24-Jul	LP.8.1	2834	ND	>1000	ND	>1000	ND	284	21	34	13
25-Jan	NB.1.8.1	2838	>1000	>1000	>1000	>1000	>1000	400-500	ND	ND	19
25-Jan	XFG	2842	>1000	>1000	>1000	>1000	>1000	>1000	ND	ND	78

N/A