Recommended Pair - SARS-CoV-2 Nucleoprotein (NP) (85C10) rabbit mAb Biotin Conjugate

Catalog: #2507   **Store at:** 2-8ºC

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

| Applications	Detection	Clonality	Isotype
ELISA	Streptavidin	Monoclonal	Rabbit IgGk

Format:	Biotin
Cross Reactivity:	Highly-specific to SARS-CoV-2 nucleoprotein; does not cross-react with nucleoprotein from SARS-CoV or other coronaviruses.
Formulation:	1X PBS, 0.02% NaN3
Preparation:	Protein A
Reactivity:	Other
Recommended Usage:	Used for specific, high-sensitivity detection of SARS-CoV-2 nucleocapsid protein (NP) in immunoassay. Can be paired with other NP-specific clones for detection in sandwich ELISA format.
Immunogen:	SARS-CoV-2 nucleoprotein (NP) specific peptide
Description:	**For highest sensitivity, we recommend pairing unconjugated clone 75G5a ([Abwiz Cat. #2481](#)), immobilized on the ELISA plate to capture COVID-19 NP antigen, with biotin-conjugated clone 85C10 (Abwiz Cat. #2507) for detection using high-sensitivity streptavidin-HRP (Pierce #21130). Other unconjugated and biotinylated anti-NP clones are provided as alternatives and also show high sensitivity and specificity.**
	We have leveraged our next-generation rabbit mAb discovery platform to develop recombinant rabbit monoclonal antibodies with extremely high sensitivity and specificity to SARS-CoV-2. These antibodies, which include clones 75G5a (Abwiz Cat. #2481), 84C4a ([Abwiz Cat. #2486](#)), 84D7 ([Abwiz Cat. #2491](#)), 85C1 ([Abwiz Cat. #2496](#)), 85C10 (Abwiz Cat. #2506), 85B4 (Abwiz Cat. #2511), and 85E9 (Abwiz Cat. #2516) can be paired in sandwich detection assay and used to detect nucleoprotein (NP) antigen from SARS-CoV-2. Antibodies 75G5a, 84C4a, 84D7, 85C10, and 85B4 do not cross-react to the highly related SARS-CoV virus or to any other coronaviruses tested. Sandwich ELISA detection using TMB/acid developer reliably detects NP antigen in the pg/mL range, and sensitivity is expected to be even higher when using more sensitive developer strategies. This panel of antibodies can be used as raw materials for diagnostic kits and can be applied to lateral flow systems for diagnostic detection of COVID-19.
References:	

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Figure: Binding of biotinylated IgG to COVID-19 Nucleocapsid Protein (1 µg/mL). 85C10-Biotin.
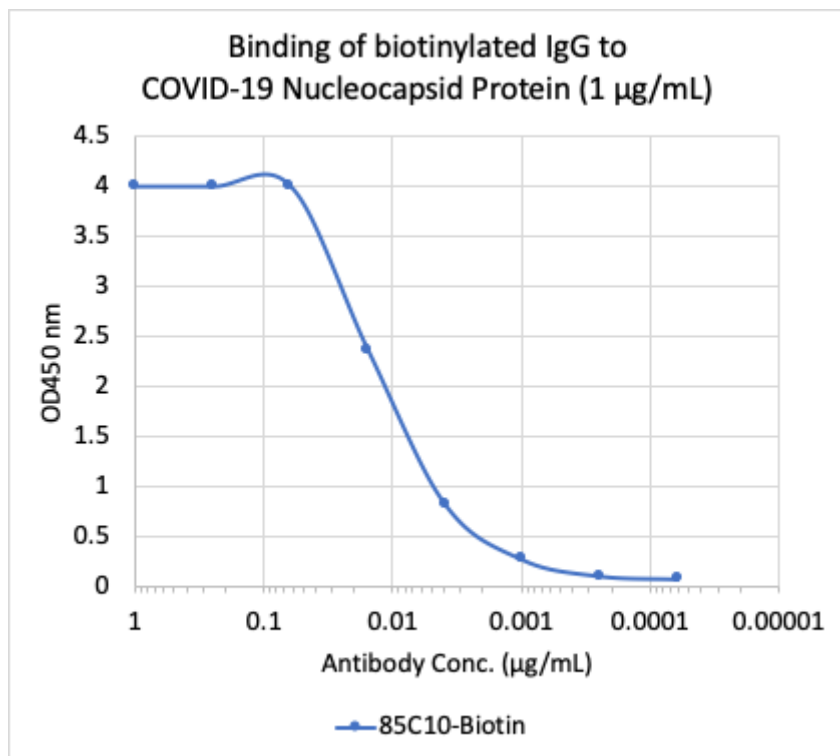
Microtiter wells were coated with SARS-CoV-2 (COVID-19) Nucleocapsid Protein (NP) at 1 ug/mL. Biotin-conjugated rabbit monoclonal antibody 85C10 (Cat# 2507) was serially diluted 1:2 starting at 1 ug/mL, and shows high-sensitivity binding to COVID-19 NP antigen.

Figure: Capture antibody: 75G5a. Detection antibody: 85C10-biotin. 75G5a 85C10-Biotin.
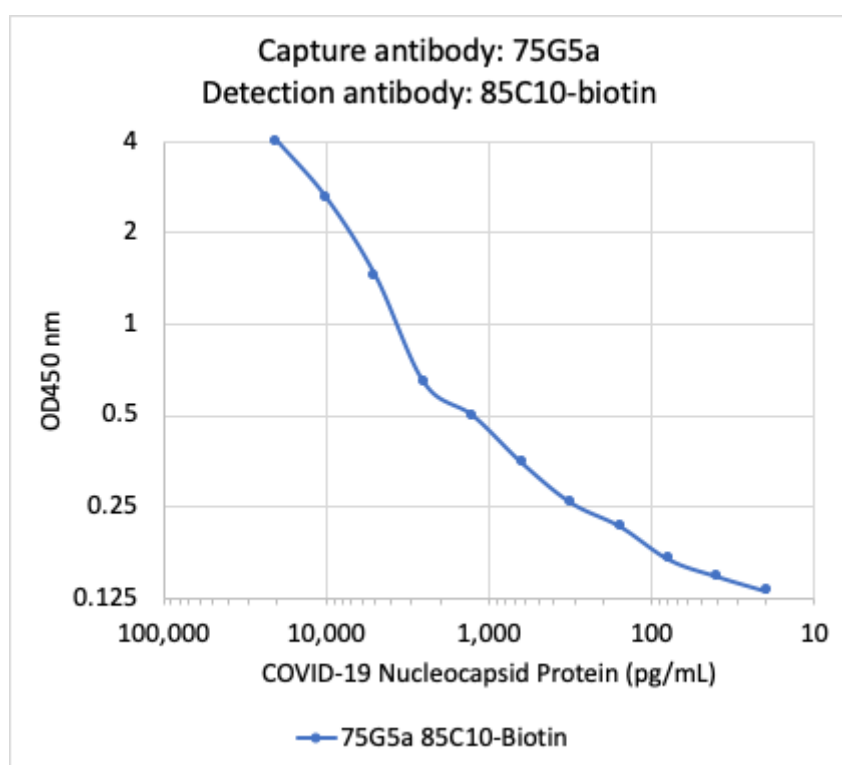
A sandwich ELISA was performed using SARS-CoV-2 (COVID-19) Nucleocapsid Protein (NP) specific rabbit monoclonal antibodies: 75G5a (Cat# 2481) as a capture antibody and 85C10-biotin (Cat# 2507) as a detection antibody. COVID-19 NP was serially diluted 1:2 starting at 20 ng/mL. Rabbit monoclonal antibodies 75G5a and 85C10-biotin detected COVID-19 NP antigen at very high sensitivity as low as 19.5 pg/mL (1.9 pg).

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