Antibodies

Anti-SARS-CoV-2 Spike Protein S1 Receptor-Binding Domain Antibody, Clone Covi-2 (Blocking/Recombinant)

Human monoclonal IgG1 antibody against SARS-CoV-2 (2019-nCoV) S protein (HEK293-expressed recombinant)

Catalog #100-0584 100 µg 1 mg/mL

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Product Description

The Covi-2 antibody reacts with Spike protein S1 receptor-binding domain (RBD) expressed by SARS-associated coronavirus 2 (SARS-CoV-2/2019-nCoV). The Spike (S) protein is a type I transmembrane glycoprotein present on the surface of coronaviruses. Entry of CoV into host cells is mediated by the S protein, where it interacts with the cell-surface receptor angiotensin-converting enzyme 2 (ACE2). In humans, ACE2 is expressed in several organs and tissues, including intestinal and respiratory epithelium. The S protein has two subunits, S1 and S2, where S1 primarily consists of the 193-amino-acid RBD and the N-terminal domain (NTD). The S2 domain is responsible for membrane fusion. During CoV infection, the S protein is cleaved into the N-terminal S1 subunit and C-terminal S2 subunit by host proteases, transforming its conformation from the pre-fusion to the post-fusion state. The S protein has been shown to play a key role in the induction of neutralizing antibody and T cell responses, which may lead to protective immunity. The RBD binds to ACE2, while the function of the NTD is not well understood. The Covi-2 antibody blocks the interaction of the S1 subunit with the ACE2 receptor and binds to a different epitope than the Covi-1 antibody.

Target Antigen Name:	SARS-CoV-2 Spike Protein S1 Receptor-Binding Domain (RBD)
Alternative Names:	SARS-CoV-2 Spike Protein, SARS-CoV-2 S Protein, SARS-CoV-2 S1 Protein
Gene ID:	N/A (Uniprot: P0DTC2)
Species Reactivity:	SARS-CoV-2 (2019-nCoV) Spike Protein S1. • Blocks interaction of SARS-CoV-2 Spike protein S1 RBD with human ACE2 • Detects a different epitope than Anti-SARS-CoV-2 Spike protein S1 RBD antibody, clone Covi-1
Host Species:	Human (recombinant antibody expressed in HEK293 cells)
Clonality:	Monoclonal
Clone:	Covi-2
Isotype:	IgG1
Immunogen:	RBD of SARS-CoV-2 Spike protein S1 (amino acids 330 - 530)
Conjugate:	Unconjugated

Applications

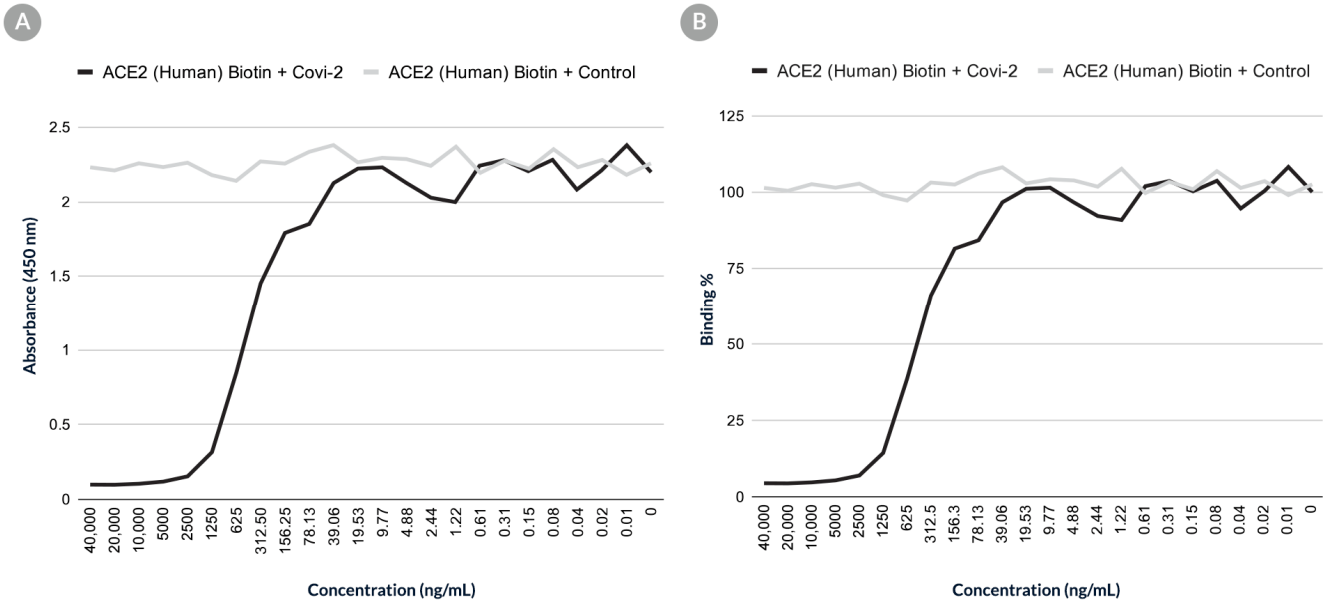
Verified:	ELISA (Blocking)
Reported:	WB (Native)

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at -20°C when stored undiluted. Stable until expiry date (EXP) on label.
Directions for Use:	It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) ELISA binding assay showing various concentrations (x-axis) of Anti-SARS-CoV-2 Spike Protein S1 Receptor Binding Domain Antibody, Clone Covi-2 (Blocking/Recombinant) (black line) or a negative control antibody (grey line) blocking biotinylated recombinant human ACE2 from binding to an ELISA plate coated with recombinant SARS-CoV-2 (2019-nCoV) Spike protein S1 RBD. The binding percentage of biotinylated recombinant human ACE2 to the Spike protein S1 RBD (y-axis) was detected using streptavidin horseradish peroxidase (HRP). (B) ELISA binding assay showing Anti-SARS-CoV-2 Spike Protein S1 Receptor-Binding Domain Antibody, Clone Covi-2 (Blocking/Recombinant) (black line) or a negative control antibody (grey line) binding to a recombinant SARS-CoV-2 (2019-nCoV) Spike protein S1 RBD.

Related Products

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