

**Anti-SARS-CoV Spike Protein S1
Receptor-Binding Domain Antibody,
Clone D005 (Recombinant)**



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TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

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Antibodies

Chimeric mouse (V), human (C) monoclonal IgG antibody against SARS-CoV, SARS-CoV-2 (2019-nCoV) S protein (HEK293-expressed recombinant)

Catalog #100-0581
#100-0582

50 µL
100 µL

Product Description

The D005 antibody reacts with the Spike Protein S1 receptor-binding domain (RBD) expressed by SARS-associated coronavirus (SARS-CoV) and has shown to cross-react with 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 RBD binds to ACE2, making it the main target for neutralizing antibodies, while the function of the NTD is not well understood. 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.

Target Antigen Name:	SARS-CoV Spike Protein S1 Receptor-Binding Domain (RBD)
Alternative Names:	SARS-CoV Spike Protein, SARS-CoV S Protein, SARS-CoV S1 Protein
Gene ID:	N/A (GenBank: AAX16192.1)
Species Reactivity:	SARS-CoV Spike S1 Protein, SARS-CoV-2 (2019-nCoV) Spike RBD Protein, SARS-CoV-2 (2019-nCoV) Spike S1 Protein. This antibody does not cross-react by ELISA with HCoV-229E Spike S1 Protein, HCoV-HKU1 (isolate N1) Spike S1 Protein, HCoV-HKU1 (isolate N5) Spike S1 Protein, HCoV-NL63 Spike S1 Protein, HCoV-OC43 Spike S1+S2 ECD Protein, or MERS-CoV Spike S1 Protein.
Host Species:	Mouse (chimeric recombinant antibody comprising mouse variable and human IgG1 constant regions; expressed in HEK293 cells)
Clonality:	Monoclonal
Clone:	D005
Isotype:	IgG1 (human), kappa (mouse)
Immunogen:	Recombinant SARS-CoV (isolate: WH20) Spike protein RBD comprising amino acids Arg306 - Phe527 fused to a C-terminal poly-His tag
Conjugate:	Unconjugated

Applications

Verified:	Interferometry
Reported:	ELISA, FC, ICC, IF, IHC, IP

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:	For ELISA, the suggested use of this antibody is 1:5000 - 1:10,000. It is recommended that the antibody be titrated for optimal performance for each application.

Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

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