

# Anti-CoV2RBD-cas-hlgG1

Monoclonal human IgG1 antibody against SARS-CoV-2 Spike (REGN10933; Casirivimab)  
Catalog code: srbdc3-mab1

<https://www.invivogen.com/sars2-spike-regn-mab>

For research use only, not for diagnostic or therapeutic use

Version 21J04-NJ

## PRODUCT INFORMATION

### Contents:

- 100 µg of Anti-CoV2RBD-cas-hlgG1, provided azide-free and lyophilized

**Target:** SARS-CoV-2 Spike receptor binding domain (S-RBD)

**Source:** CHO cells

**Isotype:** Human IgG1

**Light chain type:** Kappa

**Clonality:** Monoclonal

**Purification:** By affinity chromatography with protein G

**Formulation:** 0.2 µm filtered solution in a sodium phosphate buffer with glycine, saccharose, and stabilizing agents

### Storage

- Product is shipped at room temperature. Store lyophilized antibody at -20 °C. Lyophilized product is stable for at least 1 year.
- Reconstituted antibody is stable for 1 month when stored at 4 °C and for 1 year when aliquoted and stored at -20 °C. Avoid repeated freeze-thaw cycles.

### Quality control

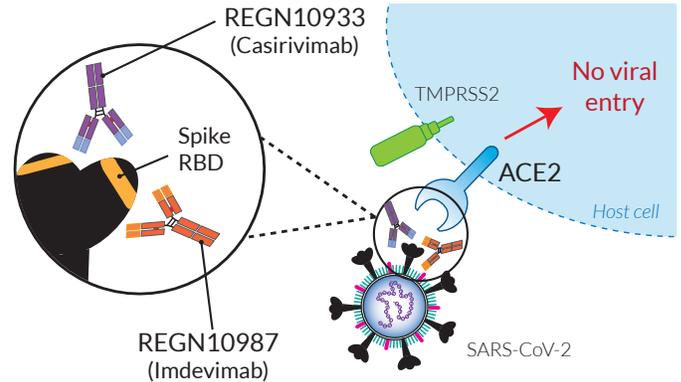
- The complete sequence of the antibody construct has been verified.
- Anti-CoV2RBD-cas-hlgG1 has been functionally validated by ELISA using Spike-RBD proteins derived from SARS-CoV-2 variants.
- Absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and TLR4 cellular assays.

## PRODUCT DESCRIPTION

Anti-CoV2RBD-cas-hlgG1 is derived from 'REGN10933', a recombinant SARS-CoV-2 neutralizing monoclonal antibody (mAb)<sup>1</sup>. Anti-CoV2RBD-cas-hlgG1 features a variable region that is reactive against the receptor binding domain (RBD) of the Spike protein of SARS-CoV-2, and the constant region of the human IgG1 (hlgG1) isotype. Anti-CoV2RBD-cas-hlgG1 was generated by recombinant DNA technology, produced in CHO cells, and purified by affinity chromatography with protein G.

### SARS-CoV-2 Spike RBD mAb (REGN10933; Casirivimab)

The SARS-CoV-2 Spike receptor-binding domain (S-RBD) is an important candidate for both treatment and vaccination strategies in the context of COVID-19. REGN10933 (aka Casirivimab) and REGN10987 (aka Imdevimab) mAbs were generated using both humanized mice and convalescent patients<sup>1</sup>. These mAbs bind two distinct and non-overlapping regions of the SARS-CoV2 S-RBD, and potentially block its binding to the ACE2 receptor on target cells<sup>1</sup>. Treatment using a combination of these mAbs (known as REGEN-COV™ or REGN-COV2) has been authorized under emergency use for COVID-19 outpatients<sup>2-4</sup>. Prophylactic and therapeutic administration of this mAb cocktail almost completely blocks the establishment of virus infection in



non-human primates<sup>5</sup> and enhances clearance of the virus in patients whose endogenous immune response has not yet been initiated<sup>2</sup>.

## APPLICATIONS

Anti-CoV2RBD-cas-hlgG1 can be used either alone or in antibody cocktails to assess its/their neutralization efficiency against SARS-CoV-2 variants. This tool can allow the monitoring of SARS-CoV-2 variant escape.

1. Hansen J. et al. 2020. Studies in humanized mice and convalescent humans yield a SARS-CoV-2 antibody cocktail. Science 369:1010-1014. 2. Weinreich D.M. et al., 2021. REGN-COV2, a Neutralizing Antibody Cocktail, in Outpatients with Covid-19. N Engl J Med. 384(3):238-251. 3. <https://www.fda.gov/media/145610/download>. 4. <https://www.ema.europa.eu/en/news/ema-issues-advice-use-regn-cov2-antibody-combination-casirivimab-imdevimab>. 5. Baum A. et al., 2020. REGN-COV2 antibodies prevent and treat SARS-CoV-2 infection in rhesus macaques and hamsters. Science 370:1110-1115.

## METHODS

### Anti-CoV2RBD-cas-hlgG1 resuspension (100 µg/ml)

*Note: Ensure you see the lyophilized pellet before resuspension.*

- Add 1 ml of sterile water to the vial and gently pipette until completely resuspended.
- Prepare aliquots and store at 4 °C or -20 °C until required.

## RELATED PRODUCTS

Product	Catalog Code
Anti-CoV2RBD-imd-hlgG1	srbdc4-mab1
Anti-CoV2RBD-bam-hlgG1	srbdc5-mab1
Anti-CoV2RBD-ete-hlgG1	srbdc6-mab1
Spike-S1-Fc (D614G)	fc-sars2-s1g
A549-hACE2-TMPRSS2	a549-hace2tpsa

**Note:** For more products related to COVID-19 research, please visit our website <https://www.invivogen.com/covid-19>

## TECHNICAL SUPPORT

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