

Anti-hACE2-mIgG2b

Monoclonal mouse IgG2b antibody against human ACE2 (angiotensin-I-converting enzyme-2)

Catalog code: mabg-hace2

<https://www.invivogen.com/mabg-hace2>

For research use only, not for diagnostic or therapeutic use

Version 21G21-NJ

PRODUCT INFORMATION

Contents:

- 100 µg of Anti-hACE2-mIgG2b, provided azide-free and lyophilized

Target: Human ACE2 (angiotensin-I-converting enzyme-2)

Clone: 1D10

Isotype: Mouse IgG2b

Immunogen: Human ACE2 protein expressed in Swiss mice following DNA immunization

Purification: By affinity chromatography with protein A

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

- Anti-hACE2-mIgG2b has been functionally validated by FACS using HEK-Blue™ hACE2-TMPRSS2 cells.
- The antibody isotype has been confirmed by ELISA.
- Absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and TLR4 cellular assays.

PRODUCT DESCRIPTION

Anti-hACE2-mIgG2b is a mouse monoclonal antibody (mAb) against the human ACE2 (angiotensin-I-converting enzyme-2) surface transmembrane protein. It was generated following Swiss mice immunization with DNA encoding hACE2. Anti-hACE2-mIgG2b is produced in hybridoma cells and purified by affinity chromatography with protein A.

APPLICATIONS

Anti-hACE2-mIgG2b can be used to assess the cell surface expression of human ACE2 in primary cells or engineered cell lines by FACS. Some neutralization effect has been observed at high concentrations using in-house ACE2-expressing cell lines and Spike pseudotyped lentiviral particles.

ACE2 BACKGROUND

ACE2 is established as a host receptor for the Spike (S) protein of SARS-CoV-2, the causative agent of COVID-19^{1,2}. Specifically, SARS-CoV-2 gains entry to host cells through the binding of the Spike receptor-binding domain (RBD) to ACE2 at the cell surface^{1,3}. Following this, the host protease, TMPRSS2, cleaves the S protein into two subunits (S1 and S2), mediating the fusion between the viral and host membranes^{1,3}.

1. Hoffmann M. et al. 2020. SARS-CoV-2 cell entry depends on ACE2 and TMPRSS2 and is blocked by a clinically proven protease inhibitor. Cell. 181:1-16. **2. Zhou P. et al., 2020.** A pneumonia outbreak associated with a new coronavirus of probable bat origin. Nature. 579(7798):270-273. **3. Walls A.C. et al., 2020.** Structure, function, and antigenicity of the SARS-CoV-2 spike glycoprotein. Cell. 181(2):281-292.e6.

METHODS

Anti-hACE2-mIgG2b 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
Mouse Control IgG2b	mabg2b-ctrlm
Anti-CoV2RBD-cas-mIgG2a	srbdc3-mab10
Anti-CoV2RBD-imd-mIgG2a	srbdc4-mab10
Anti-CoV2RBD-bam-mIgG2a	srbdc5-mab10
Anti-CoV2RBD-ete-mIgG2a	srbdc6-mab10
Spike-S1-Fc	fc-sars2-s1
HEK-Blue™ hACE2-TMPRSS2	hkb-hace2tpsa
A549-hACE2-TMPRSS2	a549-hace2tpsa

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

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