

Antibodies

Anti-Human ACE2 Antibody, Clone AC18F, ATTO 488

Catalog #100-0757

Mouse monoclonal IgG1 antibody against human angiotensin-converting enzyme 2 (ACE2), ATTO 488-conjugated

100 Tests

1 mg/mL



Scientists Helping Scientists™ | WWW.STEMCELL.COM

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

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Product Description

The AC18F antibody reacts with angiotensin-converting enzyme 2 (ACE2), a type I integral membrane protein, which includes a short C-terminal cytoplasmic domain made of 22 amino acids, a transmembrane domain, and a large N-terminal ectodomain made of 740 amino acids. The N-terminal domain of ACE2 contains a catalytic zinc-binding motif, which shares a 42% similarity to the catalytic binding domain of ACE. Despite the similarity in catalytic domains, ACE2 functions as a carboxypeptidase, while ACE functions as either a peptidyl dipeptidase or an endopeptidase. In humans, ACE2 is a key regulator of the renin-angiotensin system, where it catalyzes the cleavage of the vasoconstrictor peptide angiotensin II to angiotensin 1-7. Expression of ACE2 can be found on endothelial cells throughout the body, such as in the kidney, heart, and lungs. In the airways leading to the lungs, ACE2 provides the main entry point for SARS-CoV-2 (2019-nCoV). Once the SARS-CoV-2 Spike Protein binds to ACE2, viral fusion with the host cell membrane can occur, resulting in viral RNA genome delivery.

Target Antigen Name: ACE2

Alternative Names: SARS Receptor, Angiotensin-converting Enzyme 2, ACEH, Metalloprotease MPROT15, SARS-CoV-2 Receptor

Gene ID: 59272

Species Reactivity: Human; does not detect recombinant human ACE2 with a C-terminal tag

Host Species: Mouse

Clonality: Monoclonal

Clone: AC18F

Isotype: IgG1, kappa

Immunogen: Extracellular domain of human ACE2 recombinant protein (aa 18 - 740)

Conjugate: ATTO 488

Applications

Reported: FC

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, pH 7.4

Purification: The antibody was purified by affinity chromatography.

Stability and Storage: Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. Stable until expiry date (EXP) on label.

Directions for Use: The suggested use of this antibody is: FC, 1:1000. 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.

References

1. Song X et al. (2020) High expression of angiotensin-converting enzyme-2 (ACE2) on tissue macrophages that may be targeted by virus SARS-CoV-2 in COVID-19 patients. *bioRxiv* 21(1): 1–9. (FC)

PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2021 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, and Scientists Helping Scientists are trademarks of STEMCELL Technologies Canada Inc. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.