

# ACE2 Monoclonal Antibody (CL4035)

Product Details	
Size	100 µL
Species Reactivity	Human
Published Species	Non-human primate, Human
Host/Isotype	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	CL4035
Conjugate	Unconjugated
Immunogen	Recombinant protein corresponding to Human ACE2
Form	Liquid
Concentration	1 mg/mL
Purification	Protein A
Storage buffer	PBS, pH 7.2, with 40% glycerol
Contains	0.02% sodium azide
Storage conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.
RRID	AB_2787031

Applications	Tested Dilution	Publications
Western Blot (WB)	1 µg/mL	2 Publications
Immunohistochemistry (IHC)	1:20,000-1:50,000	4 Publications
Immunocytochemistry (ICC/IF)	-	2 Publications
Flow Cytometry (Flow)	-	1 Publication

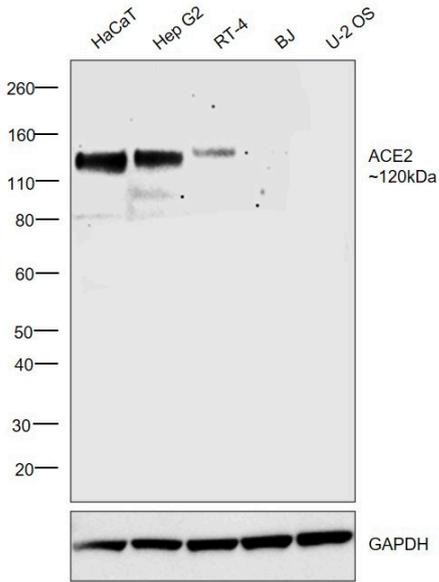
## Product Specific Information

Immunogen sequence: MSSSSWLLLS LVAVTAAQST IEEQAKTFLD KFNHEAEDLF YQSSLASWNY NTNITEENVQ NMNNAGDKWS AFLKEQSTLA QMYPLQEIQN LTVKLQLQAL QQNGSSVLSE D

## Product Images For ACE2 Monoclonal Antibody (CL4035)

### ACE2 Antibody (MA5-31395)

Antibody specificity was demonstrated by detection of differential basal expression of the target across cell lines owing to their inherent genetic constitution. Relative expression of Angiotensin-converting enzyme 2 was observed in HaCaT, Hep G2 and RT4 but not in BJ and U-2 OS (DOI: 10.3892/mmr.2014.2266) using Anti-ACE2 Monoclonal Antibody (CL4035) (Product # MA5-31395) in Western Blot. {RE}



### ACE2 Antibody (MA5-31395)

Antibody specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. A loss of signal was observed for target protein in ACE2 KO cell line compared to control cell line using Anti-ACE2 Monoclonal Antibody (CL4035) (Product # MA5-31395). {KO}

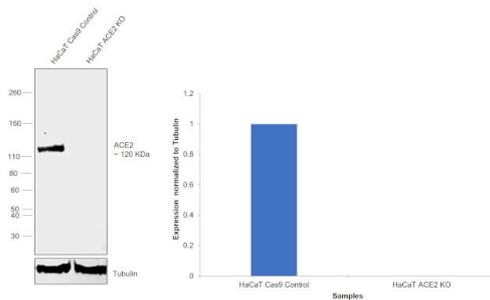
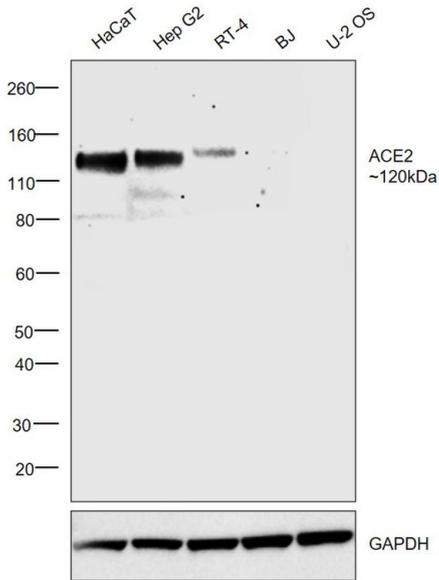


Fig a

Fig b

### ACE2 Antibody (MA5-31395) in WB

Western Blot was performed using Anti-ACE2 Monoclonal Antibody (CL4035) (Product # MA5-31395) and a 120 kDa band corresponding to Angiotensin-converting enzyme 2 was observed across all cell lines tested except BJ and U-2 OS which are known to be low expressing (DOI: 10.3892/mmr.2014.2266). Membrane enriched extracts (50 µg lysate) of HaCaT (Lane 1), Hep G2 (Lane 2), RT-4 (Lane 3), BJ (Lane 4) and U-2 OS (Lane 5) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0321BOX). Resolved proteins were then transferred onto a Nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The Blot was probed with the primary antibody (1 µg/mL dilution) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005).



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## 9 References

### Western Blot (2)

#### Cells

#### GLP-1 Mediates Regulation of Colonic ACE2 Expression by the Bile Acid Receptor GPBAR1 in Inflammation.

"Published figure using ACE2 monoclonal antibody (Product # MA5-31395) in Western Blot"

Authors: Biagioli M, Marchianò S, Roselli R, Di Giorgio C, Bellini R, Bordoni M, Distrutti E, Catalanotti B, Zampella A, Graziosi L, Donini A, Fiorucci S

Year  
2022

#### Biomedicines

#### Hydrogen Sulfide Inhibits TMPRSS2 in Human Airway Epithelial Cells: Implications for SARS-CoV-2 Infection.

"MA5-31395 was used in Western Blotting to suggest that inhalational exposure of respiratory epithelial cells to natural H<sub>2</sub>S sources may hinder SARS-CoV-2 entry into airway epithelial cells and, consequently, potentially prevent the virus from spreading into the lower respiratory tract and the lung."

Authors: Pozzi G, Masselli E, Gobbi G, Mirandola P, Taborda-Barata L, Ampollini L, Carbognani P, Micheloni C, Corazza F, Galli D, Carubbi C, Vitale M

Year  
2021

Species  
Human

Dilution  
1:1,000

### Immunohistochemistry (4)

#### Cancers

#### Significance of Furin Expression in Thyroid Neoplastic Transformation.

"MA5-31395 was used in Immunohistochemistry to show the mRNA downregulation of ACE2 and overexpression of Furin in thyroid neoplasms."

Authors: Azevedo MT, Macedo S, Canberk S, Cardoso L, Gaspar TB, Pestana A, Batista R, Sobrinho-Simões M, Soares P

Year  
2023

Species  
Human

Dilution  
1:2,500

#### European thyroid journal

#### Detection of SARS-CoV-2 infection in thyroid follicular cells from a COVID-19 autopsy series.

"Published figure using ACE2 monoclonal antibody (Product # MA5-31395) in Immunohistochemistry"

Authors: Macedo S, Pestana A, Santos L, Neves C, Guimarães S, Duarte-Neto A, Dolhnikoff M, Saldiva P, Alves G, Oliveira R, Cabanes D, Carneiro F, Sobrinho-Simões M, Soares P

Year  
2022

Species  
Human

Dilution  
1:2500

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ICC/IF (2)   Flow (1)

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