



ACE2, CT (Angiotensin-converting Enzyme 2, ACE-related Carboxypeptidase, Angiotensin-converting Enzyme Homolog, ACEH, Metalloprotease MPROT15, Processed Angiotensin-converting Enzyme 2, UNQ868/PRO1885) (AP)

Catalog number

A2295-02D5-AP

Supplier

United States Biological

ACE2 cDNA encodes a deduced 805aa protein containing a potential 17aa N-terminal signal peptide and a putative 22aa C-terminal membrane anchor. It also possesses a zinc metalloprotease consensus sequence and a conserved glutamine residue that may function as a third zinc ligand. ACE2 is expressed predominantly in vascular endothelial cells of the heart and kidney. ACE converts angiotensin I to angiotensin II, ACE2 converts angiotensin I to angiotensin 1-9, which has 9aa. Angiotensin II is a potent blood vessel constrictor, while angiotensin 1-9 does not impact blood vessels but is cleaved by ACE to a shorter peptide, angiotensin 1-7, which is a blood vessel dilator. Spike (S) proteins of coronaviruses, including the SARS coronavirus, bind with cellular receptors to mediate infection of target cells. ACE2 binds the S1 domain of the SARS coronavirus S protein. SARS coronavirus replicates efficiently on ACE2-transfected but not mock-transfected 293T cells. Anti-ACE2 but not anti-ACE1 antibody blocks viral replication on Vero E6 cells. It has been proposed that ACE2 is a functional receptor for SARS coronavirus.

Applications

Suitable for use in ELISA, Western Blot and Immunohistochemistry. Other applications not tested.

Recommended Dilutions

Immunohistochemistry: Formalin fixed and paraffin embedded tissues
Optimal dilutions to be determined by the researcher.

Storage and Stability

Store product at 4°C. DO NOT FREEZE! Stable at 4°C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. For maximum recovery of product, centrifuge the original vial prior to removing the cap.

Note

Applications are based on unconjugated antibody.

Immunogen

KLH-conjugated synthetic peptide mapping to a fragment of residues within amino acids 773-805 in the C-terminal region of human ACE2..

Formulation

Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Alkaline Phosphatase (AP).



Purity

Purified by Protein A/G affinity chromatography.

Specificity

Recognizes human ACE2.

Product Type

Pab

Source

human

Isotype

IgG

Grade

Affinity Purified

Applications

E IHC WB

Crossreactivity

Hu

Storage

4°C Do Not Freeze

MW

92.491

Detection Method

AP

Reference

1. Douglas, G.C., et al., Endocrinology 145(10):4703-4711 (2004). 2. Turner, A.J., et al., Trends Pharmacol. Sci. 25(6):291-294 (2004). 3. Towler, P., et al., J. Biol. Chem. 279(17):17996-18007 (2004). 4. Wong, S.K., et al., J. Biol. Chem. 279(5):3197-3201 (2004). 5. Li, W., et al., Nature 426(6965):450-454 (2003).