

BP2275

Polyclonal Antibody to ACE2 - Aff - Purified

Alternate names:	ACE-related carboxypeptidase, Angiotensin-converting enzyme 2, Angiotensin-converting enzyme homolog
Quantity:	0.1 mg
Concentration:	1,0 mg/ml
Background:	Angiotensin converting enzyme 2 (ACE2) plays a central role in vascular, renal, and myocardial physiology. In contrast to its homolog ACE, ACE2 expression is restricted to heart, kidney, and testis. Recently ACE2 has also been shown to be a functional receptor of the SARS coronavirus. The normal function of ACE2 is to convert the inactive vasoconstrictor angiotensin I (AngI) to Ang1-9 and the active form AngII to Ang1 7, unlike ACE, which converts AngI to AngII. While the role of these vasoactive peptides is not well understood, lack of ACE2 expression in ace2-/ace2- mice leads to severely reduced cardiac contractility, indicating its importance in regulating heart function. ACE1 inhibitors such as catopril and lisinopril do not block ACE2 activity. The full length sequence for ACE2 encodes an 805 amino acid protein with predicted mass of 92.46 kDa and a pI of 5.22.
Uniprot ID:	Q9BYF1
NCBI:	NP_068576.1
GeneID:	59272
Host:	Rabbit
Immunogen:	Synthetic peptide corresponding to amino acids near the center of human ACE2 (Genbank accession NP_068576)
Format:	State: Liquid purified Ig fraction Purification: Immunoaffinity Buffer System: PBS containing 0.02 % Sodium azide as preservative.
Applications:	Suitable for use in Western blot (0.5 to 2 µg/ml). Human kidney or human testis cell lysate can be used as positive control and a 90 kDa band can be detected. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	Reacts with Human Angiotensin Converting Enzyme 2 (ACE2, SARS Receptor), Middle region. Does not crossreact with ACE1. Species: Human. Other species not tested.
Storage:	Store the antibody undiluted at 2-8 °C. Should this product contain a precipitate we recommend microcentrifugation before use. Shelf life: one year from despatch.
General Readings:	1. Donoghue M, Hsieh F, Baronas E, Godbout K, Gosselin M, Stagliano N, et al. A novel angiotensin-converting enzyme-related carboxypeptidase (ACE2) converts angiotensin I to angiotensin 1-9. Circ Res. 2000 Sep 1;87(5):E1-9. PubMed PMID: 10969042. 2. Tipnis SR, Hooper NM, Hyde R, Karran E, Christie G, Turner AJ. A human homolog of

angiotensin-converting enzyme. Cloning and functional expression as a captopril-insensitive carboxypeptidase. J Biol Chem. 2000 Oct 27;275(43):33238-43. PubMed PMID: 10924499.

3. Li W, Moore MJ, Vasilieva N, Sui J, Wong SK, Berne MA, et al. Angiotensin-converting enzyme 2 is a functional receptor for the SARS coronavirus. Nature. 2003 Nov 27;426(6965):450-4. PubMed PMID: 14647384.

4. Crackower MA, Sarao R, Oudit GY, Yagil C, Kozieradzki I, Scanga SE, et al. Angiotensin-converting enzyme 2 is an essential regulator of heart function. Nature. 2002 Jun 20;417(6891):822-8. PubMed PMID: 12075344.