Datasheet for ABIN3043777

anti-Angiotensin I Converting Enzyme 1 antibody (AA 651-864)

5 Images | 1 Publication

Go to Product page

Overview

Quantity:	100 µg
Target:	Angiotensin I Converting Enzyme 1 (ACE)
Binding Specificity:	AA 651-864
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Purpose:	Rabbit IgG polyclonal antibody for Angiotensin-converting enzyme(ACE) detection. Tested with WB, IHC-P, IHC-F in Human,Mouse,Rat.
Immunogen:	E.coli-derived human ACE recombinant protein (Position: K651-Y864). Human ACE shares 73% and 76% amino acid (aa) sequences identity with mouse and rat ACE, respectively.
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for Angiotensin-converting enzyme(ACE) detection. Tested with WB, IHC-P, IHC-F in Human,Mouse,Rat. Gene Name: angiotensin I converting enzyme Protein Name: Angiotensin-converting enzyme
Purification:	Immunogen affinity purified.

Target Details

Target:	Angiotensin I Converting Enzyme 1 (ACE)
Alternative Name:	ACE (ACE Products)
Background:	Angiotensin-converting enzyme (ACE), an exopeptidase, is a circulating enzyme that participates in the body's renin-angiotensin system(RAS), which mediates extracellular volume (i.e. that of the blood plasma, lymph and interstitial fluid), and arterial vasoconstriction. It is secreted by pulmonary and renal endothelial cells and catalyzes the conversion of decapeptide angiotensin I to octapeptide angiotensin II. Using a DNA marker at the growth hormone gene locus, which they characterized as 'extremely polymorphic' and which showed no recombination with ACE, ACE was mapped to 17q22-q24, consistent with the in situ hybridization mapping to 17q23. ACE, or kininase II, is a dipeptidyl carboxypeptidase that plays an important role in blood pressure regulation and electrolyte balance by hydrolyzing angiotensin I into angiotensin II, a potent vasopressor, and aldosterone-stimulating peptide. The enzyme is also able to inactivate bradykinin, a potent vasodilator. Synonyms: ACE 1 antibody|ACE antibody|ACE T antibody|ACE_HUMAN antibody|ACE1 antibody|Angiotensin converting enzyme somatic isoform antibody|Angiotensin converting enzyme testis specific isoform antibody|Angiotensin I converting enzyme antibody|Angiotensin I converting enzyme 1 antibody|Angiotensin I converting enzyme peptidyl dipeptidase A 1 antibody|Angiotensin-converting enzyme antibody|Carboxycathepsin antibody|CD 143 antibody|CD143 antibody|CD143 antigen antibody|DCP 1 antibody|DCP antibody|DCP1 antibody|Dipeptidyl carboxypeptidase 1 antibody|Dipeptidyl carboxypeptidase I antibody|Kininase II antibody|MGC26566 antibody|MVCD3 antibody|Peptidase P antibody|Peptidyl dipeptidase A antibody|soluble form antibody|Testicular ECA antibody
Gene ID:	1636
UniProt:	P12821
Pathways:	ACE Inhibitor Pathway, Peptide Hormone Metabolism, Regulation of Systemic Arterial Blood Pressure by Hormones, Feeding Behaviour, Smooth Muscle Cell Migration

Application Details

Application Notes:	WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, Mouse, The detection limit for ACE is approximately 0.25 ng/lane under reducing conditions. IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Human, Mouse, Rat, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the

Application Details

	staining of formalin/paraffin sections. IHC-F: Concentration: 0.5-1 µg/mL, Tested Species: Mouse Notes: Tested Species: Species with positive results. Other applications have not been tested. Optimal dilutions should be determined by end users.
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P) and IHC(F).
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freezing and thawing.
Storage:	4 °C/-20 °C
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Publications

Product cited in:	Mao, Lu, Wang, Tian, Huang, Feng, Zhang, Chang: "Role of PI3K p110β in the differentiation of human embryonic stem cells into islet-like cells." in: **Biochemical and biophysical research communications**, Vol. 488, Issue 1, pp. 109-115, (2017) (PubMed). Wang, Zhou, Zhang, Wu, Zhang, Zhang: "Identification and localization of gastrointestinal hormones in the skin of the bullfrog Rana catesbeiana during periods of activity and hibernation." in: **Acta histochemica**, Vol. 116, Issue 8, pp. 1418-26, (2014) (PubMed).

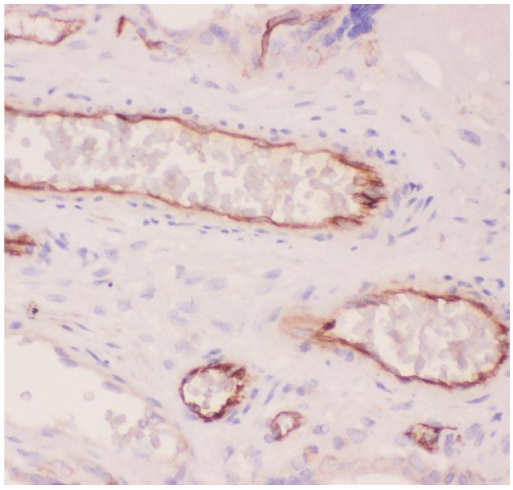
Publications

Chen, He, Peng, Liu, Jin, Cao, Wang, Xiao: "An immunohistochemical study of somatostatin in the stomach and the small intestine of the African ostrich (Struthio camelus)." in: **Tissue & cell**, Vol. 45, Issue 6, pp. 363-6, (2013) (PubMed).

Jiang, Deng, Duan, Chen, Xiang, Lu, Ma: "Somatostatin receptors SSTR2 and SSTR5 are expressed in the human thoracic duct." in: **Lymphology**, Vol. 44, Issue 1, pp. 21-8, (2011) (PubMed).

Zong, Chen, Zhang, Zou: "Effects of intra-gastric beta-casomorphin-7 on somatostatin and gastrin gene expression in rat gastric mucosa." in: **World journal of gastroenterology**, Vol. 13, Issue 14, pp. 2094-9, (2007) (PubMed).

Validation report #300031 for Immunohistochemistry (IHC)

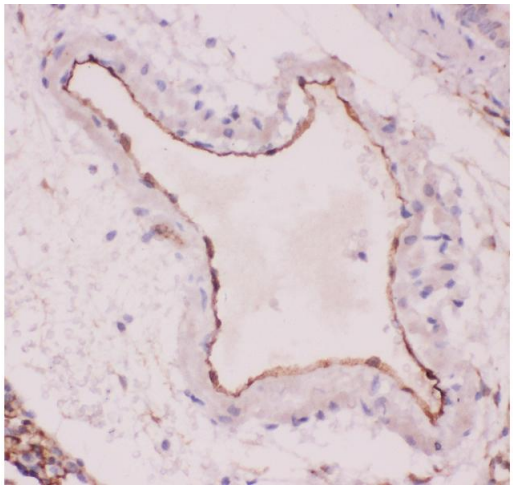


Immunohistochemistry

Image 1. Anti-ACE Picoband antibody, IHC(P): Human Placenta Tissue

Western Blotting

Image 2. Anti-ACE Picoband antibody, All lanes: Anti ACE at 0.5ug/ml WB: Recombinant Human ACE Protein 0.5ng Predicted bind size: 47KD Observed bind size: 47KD



Immunohistochemistry

Image 3. Anti-ACE Picoband antibody, IHC(P): Rat Lung Tissue

Please check the product details page for more images. Overall 5 images are available for ABIN3043777.