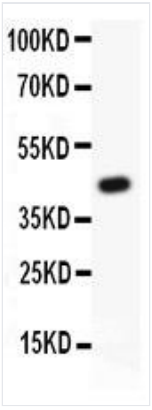
ACE Antibody – Rabbit Polyclonal

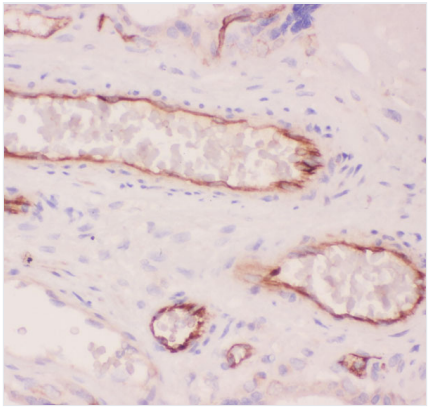
PRODUCT OVERVIEW

Product Name	ACE, Polyclonal Antibody
Full Product Name	ACE (ACE 1, ACE T, ACE_HUMAN, ACE1, Angiotensin Converting Enzyme Somatic Isoform, Angiotensin Converting Enzyme Testis Specific Isoform, Angiotensin I Converting Enzyme, Angiotensin I Converting Enzyme 1, Angiotensin I Converting Enzyme Peptidyl Dipeptid
Product Gene Name	anti-ACE antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Supplied as a liquid in PBS, pH 7.2. Labeled with MaxLight405.
Purity/Purification	Purified by Immunoaffinity chromatography.
Specificity	Recognizes human ACE. Species Crossreactivity: mouse and rat
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree 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. Caution: MaxLight405 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	149,715 Da
Chromosome Location	Chromosome: 17; NC_000017.10 (61554422..61575741). Location: 17q23.3
OMIM	106180
3D Structure	ModBase 3D Structure for P12821
Immunogen	Recombinant protein corresponding to human ACE expressed in E. coli. (Position: K651-Y864). Species sequence homology: mouse (73%) and rat (76%)
Conjugate	MaxLight405
Note	Preservative Free
Product Categories/Family for anti-ACE antibody	Antibodies; ACE
Applications Tested/Suitable for anti-ACE antibody	Immunohistochemistry (IHC) Frozen/Paraffin, Western Blot (WB)
Application Notes for anti-ACE antibody	IHC-F: 0.5-1ug/ml IHC-P: 0.5-1ug/ml, boiling the paraffin sections in 10mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections. WB: 0.1-0.5ug/ml, the detection limit is ~0.25ng/lane under reducing conditions. Applications are based on unconjugated antibody.
Related Product Information for anti-ACE antibody	MBS6460688 is an antibody targeting ACE. Also known as ACE (ACE 1, ACE T, ACE_HUMAN, ACE1, Angiotensin Converting Enzyme Somatic Isoform, Angiotensin Converting Enzyme Testis Specific Isoform, Angiotensin I Converting Enzyme, Angiotensin I Converting Enzyme 1, Angiotensin I Converting Enzyme Peptidyl Dipeptid. Reactive in Human, Mouse, Rat. Host: Rabbit.

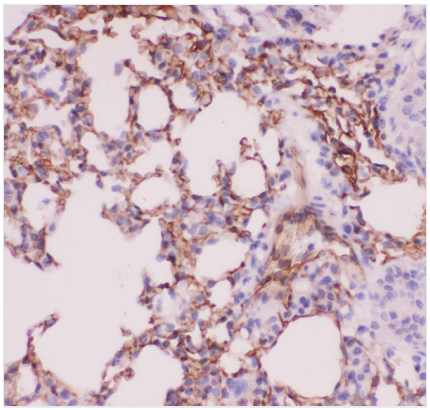
Product References and Citations for anti-ACE antibody	1. Kierszenbaum, Abraham L. (2007). Histology and cell biology: an introduction to pathology. Mosby Elsevier. 2. Jeunemaitre, X., Lifton, R. P., Hunt, S. C., Williams, R. R., Lalouel, J.-M. Absence of linkage between the angiotensin converting enzyme locus and human essential hypertension. Nature Genet. 1: 72-75, 1992. 3. Mattei, M.-G., Hubert, C., Alhenc-Gelas, F., Roeckel, N., Corvol, P., Soubrier, F. Angiotensin-I converting enzyme gene is on chromosome 17. (Abstract) Cytogenet. Cell Genet. 51: 1041, 1989.
Other Notes	Small volumes of anti-ACE antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-ACE antibody
Anti-ACE antibody, All lanes: Anti ACE at 0.5ug/ml WB: Recombinant Human ACE Protein 0.5ng Predicted band size: 47KD Observed band size: 47KD



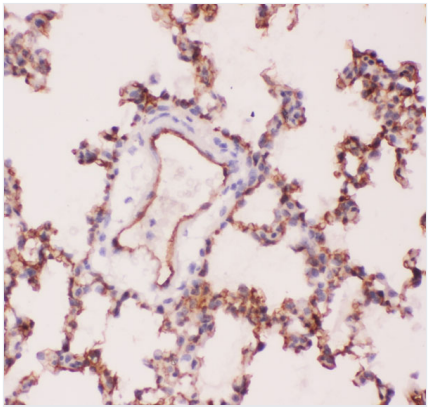
Immunohistochemistry (IHC) of anti-ACE antibody
IHC(P): Human Placenta Tissue



Immunohistochemistry (IHC) of anti-ACE antibody
IHC(P): Mouse Lung Tissue



Immunohistochemistry (IHC) of anti-ACE antibody
IHC(P): Rat Lung Tissue



Immunohistochemistry (IHC) of anti-ACE antibody
IHC(P): Rat Lung Tissue

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ACE. It may not necessarily be applicable to this product.

NCBI GI #	76057114
NCBI GeneID	1636
NCBI Accession #	ABA39229.1
UniProt Primary Accession #	P12821
UniProt Secondary Accession #	P22966; Q53YX9; Q59GY8; Q7M4L4; B0LPF0; B4DXI3; E7EU16
UniProt Related Accession #	P12821
NCBI Official Full Name	angiotensin I converting enzyme
NCBI Official Synonym Full Names	angiotensin I converting enzyme
NCBI Official Symbol	ACE
NCBI Official Synonym Symbols	DCP; ICH; ACE1; DCP1; CD143; MVCD3
UniProt Protein Name	Angiotensin-converting enzyme
UniProt Synonym Protein Names	Dipeptidyl carboxypeptidase I; Kininase II
Protein Family	Accessory cholera enterotoxin
UniProt Gene Name	ACE
UniProt Synonym Gene Names	DCP; DCP1; ACE
UniProt Entry Name	ACE_HUMAN
NCBI Protein Information	angiotensin-converting enzyme; kininase II; peptidase P; CD143 antigen; testicular ECA; carboxycathepsin; dipeptidyl carboxypeptidase 1; dipeptidyl carboxypeptidase I; angiotensin converting enzyme, somatic isoform; angiotensin I converting enzyme (peptid
NCBI Summary for ACE	This gene encodes an enzyme involved in catalyzing the conversion of angiotensin I into a physiologically active peptide angiotensin II. Angiotensin II is a potent vasopressor and aldosterone-stimulating peptide that controls blood pressure and fluid-electrolyte balance. This enzyme plays a key role in the renin-angiotensin system. Many studies have associated the presence or absence of a 287 bp Alu repeat element in this gene with the levels of circulating enzyme or cardiovascular pathophysiologies. Multiple alternatively spliced transcript variants encoding different isoforms have been identified, and two most abundant spliced variants encode the somatic form and the testicular form, respectively, that are equally active. [provided by RefSeq, May 2010]

UniProt Comments for ACE	ACE: Converts angiotensin I to angiotensin II by release of the terminal His-Leu, this results in an increase of the vasoconstrictor activity of angiotensin. Also able to inactivate bradykinin, a potent vasodilator. Has also a glycosidase activity which releases GPI-anchored proteins from the membrane by cleaving the mannose linkage in the GPI moiety. Genetic variations in ACE may be a cause of susceptibility to ischemic stroke (ISCHSTR); also known as cerebrovascular accident or cerebral infarction. A stroke is an acute neurologic event leading to death of neural tissue of the brain and resulting in loss of motor, sensory and/or cognitive function. Ischemic strokes, resulting from vascular occlusion, is considered to be a highly complex disease consisting of a group of heterogeneous disorders with multiple genetic and environmental risk factors. Defects in ACE are a cause of renal tubular dysgenesis (RTD). RTD is an autosomal recessive severe disorder of renal tubular development characterized by persistent fetal anuria and perinatal death, probably due to pulmonary hypoplasia from early-onset oligohydramnios (the Potter phenotype). Genetic variations in ACE are associated with susceptibility to microvascular complications of diabetes type 3 (MVCD3). These are pathological conditions that develop in numerous tissues and organs as a consequence of diabetes mellitus. They include diabetic retinopathy, diabetic nephropathy leading to end-stage renal disease, and diabetic neuropathy. Diabetic retinopathy remains the major cause of new- onset blindness among diabetic adults. It is characterized by vascular permeability and increased tissue ischemia and angiogenesis. Defects in ACE are a cause of susceptibility to intracerebral hemorrhage (ICH). A pathological condition characterized by bleeding into one or both cerebral hemispheres including the basal ganglia and the cerebral cortex. It is often associated with hypertension and craniocerebral trauma. Intracerebral bleeding is a common cause of stroke. Belongs to the peptidase M2 family. 4 isoforms of the human protein are produced by alternative splicing. Protein type: Protease; Membrane protein, integral; EC 3.4.15.1 Chromosomal Location of Human Ortholog: 17q23.3 Cellular Component: extracellular space; lysosome; extracellular region; integral to membrane; plasma membrane; endosome; external side of plasma membrane Molecular Function: peptidyl-dipeptidase activity; tripeptidyl-peptidase activity; metallopeptidase activity; zinc ion binding; carboxypeptidase activity; mitogen-activated protein kinase kinase binding; drug binding; actin binding; protein binding; bradykinin receptor binding; endopeptidase activity; exopeptidase activity; mitogen-activated protein kinase binding; chloride ion binding Biological Process: mononuclear cell proliferation; regulation of vasodilation; neutrophil mediated immunity; angiotensin mediated regulation of renal output; regulation of angiotensin metabolic process; arachidonic acid secretion; proteolysis; angiotensin maturation; regulation of systemic arterial blood pressure by renin-angiotensin; antigen processing and presentation of peptide antigen via MHC class I; cellular protein metabolic process; regulation of smooth muscle cell migration; heart contraction; peptide catabolic process; regulation of vasoconstriction; beta-amyloid metabolic process; regulation of blood pressure; angiotensin catabolic process in blood; blood vessel remodeling; hormone catabolic process; spermatogenesis; kidney development Disease: Renal Tubular Dysgenesis; Microvascular Complications Of Diabetes, Susceptibility To, 3; Alzheimer Disease; Hemorrhage, Intracerebral, Susceptibility To
Research Articles on ACE	**1.** ACE I/D polymorphism is associated with hepatocellular carcinoma(HCC), indicating that the ACE I/D polymorphism contributes to HCC progression in the Chinese population.
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