

## Basic Information

Product Name	Anti-ACE Antibody	
Gene Name	ACE	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, ICC/IF	
Contents	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
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.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	150-180 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

12 months from date of receipt, -20°C as supplied.

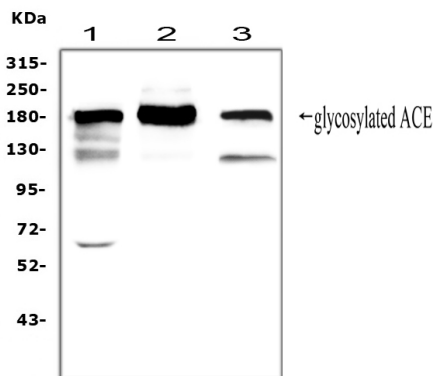
## Background Information

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.

## Reference

Anti-ACE Antibody被引用在5文献中。

## Selected Validation Data



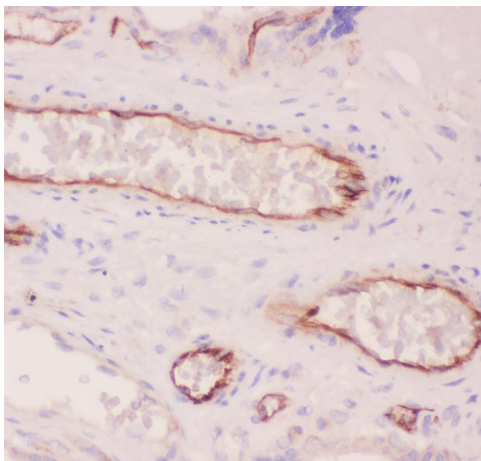
Western blot analysis of ACE using anti-ACE antibody (PB9124). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: rat lung tissue lysates,

Lane 2: mouse lung tissue lysates,

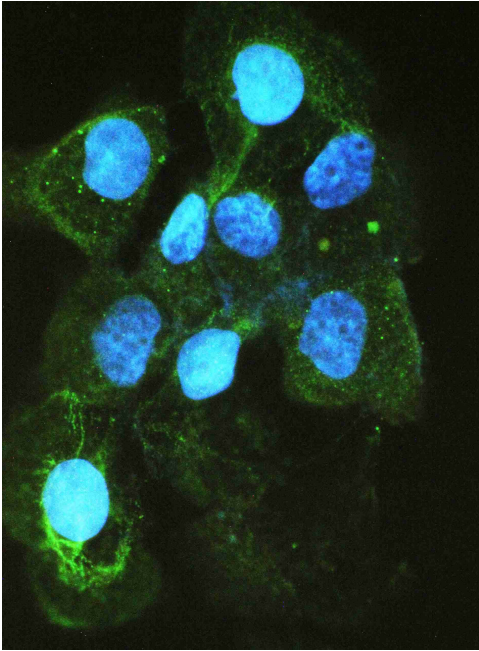
Lane 3: human Raji whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-ACE antigen affinity purified polyclonal antibody (PB9124) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for ACE at approximately 150-180 kDa. The expected band size for ACE is at 54 kDa.



IHC analysis of ACE using anti-ACE antibody (PB9124).

ACE was detected in a paraffin-embedded section of human placenta tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-ACE Antibody (PB9124) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



IF analysis of ACE using anti- ACE antibody (PB9124).

ACE was detected in immunocytochemical section of A431 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2µg/mL rabbit anti- ACE Antibody (PB9124) overnight at 4°C. DyLight488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.