

# Anti-Angiotensin Converting Enzyme 1 antibody [EPR22250-204] ab222739

Recombinant RabMAb

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### Overview

<b>Product name</b>	Anti-Angiotensin Converting Enzyme 1 antibody [EPR22250-204]
<b>Description</b>	Rabbit monoclonal [EPR22250-204] to Angiotensin Converting Enzyme 1
<b>Host species</b>	Rabbit
<b>Specificity</b>	WB is only recommended for mouse.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, IHC-Fr, ELISA
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Recombinant fragment
<b>Immunogen</b>	Recombinant fragment within Mouse Angiotensin Converting Enzyme 1 aa 600-1250. The exact sequence is proprietary. Database link: <a href="#">P09470</a>
<b>Positive control</b>	WB: Mouse liver, brain, heart, kidney and lung lysates; bEnd.3 whole cell lysate. IHC-P: Mouse and rat lung tissues. IHC-Fr: Mouse kidney tissue.
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> For more information <a href="#">see here</a> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR22250-204
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab222739 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>WB</b>		1/1000. Detects a band of approximately 180 kDa (predicted molecular weight: 151 kDa).
<b>IHC-P</b>		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
<b>IHC-Fr</b>		1/100. Perform heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).
<b>ELISA</b>		Use at an assay dependent concentration.

## Target

<b>Function</b>	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.
<b>Tissue specificity</b>	Ubiquitously expressed, with highest levels in lung, kidney, heart, gastrointestinal system and prostate. Isoform Testis-specific is expressed in spermatocytes and adult testis.
<b>Involvement in disease</b>	<p>Ischemic stroke (ISCHSTR) [MIM:601367]: 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. Note=Disease susceptibility is associated with variations affecting the gene represented in this entry.</p> <p>Renal tubular dysgenesis (RTD) [MIM:267430]: 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). Note=The disease is caused by mutations affecting the gene represented in this entry.</p> <p>Microvascular complications of diabetes 3 (MVCD3) [MIM:612624]: 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. Note=Disease susceptibility is associated with variations affecting the gene</p>

represented in this entry.

Intracerebral hemorrhage (ICH) [MIM:614519]: 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. Note=Disease susceptibility is associated with variations affecting the gene represented in this entry.

### Sequence similarities

Belongs to the peptidase M2 family.

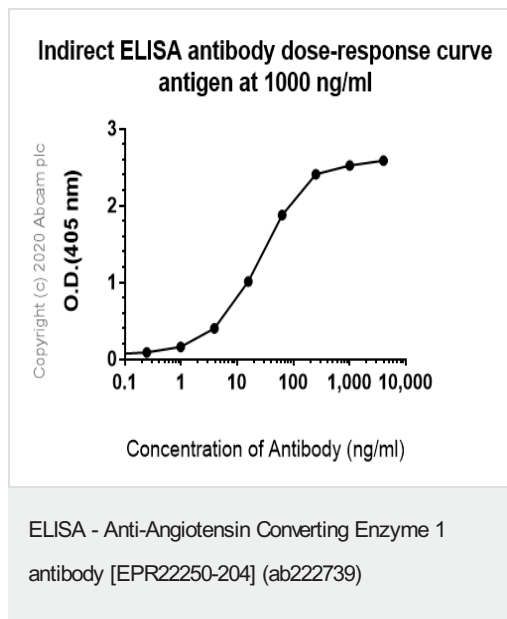
### Post-translational modifications

Phosphorylated by CK2 on Ser-1299; which allows membrane retention.

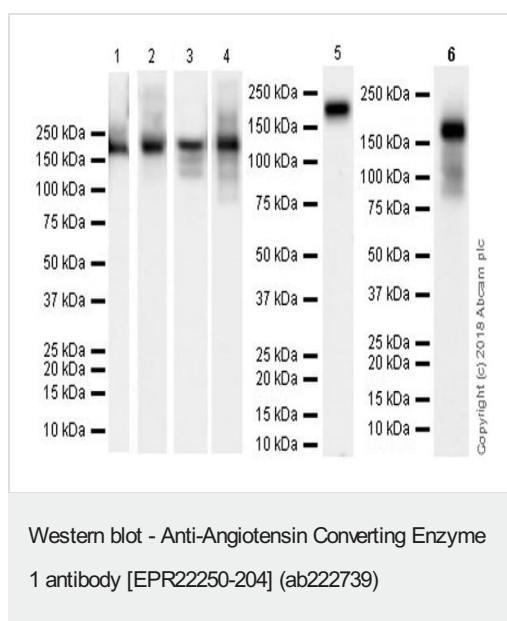
### Cellular localization

Secreted and Cell membrane.

## Images



ELISA analysis of Mouse ACE Recombinant Protein recombinant protein at 1000 ng/ml with ab222739. An Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L) at 1/2500 dilution was used as the secondary antibody.



**All lanes** : Anti-Angiotensin Converting Enzyme 1 antibody [EPR22250-204] (ab222739) at 1/1000 dilution

**Lane 1** : Mouse liver lysate

**Lane 2** : Mouse brain lysate

**Lane 3** : Mouse heart lysate

**Lane 4** : Mouse kidney lysate

**Lane 5** : bEnd.3 (mouse brain endothelioma cell line) whole cell lysate

**Lane 6** : Mouse lung lysate

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

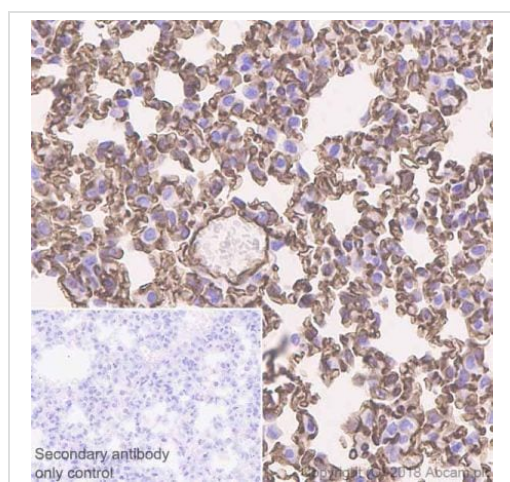
**Predicted band size:** 151 kDa

**Observed band size:** 180 kDa

**Exposure time :** Lane 1: 81 seconds; Lane 2: 26 seconds; Lane 3: 8 seconds; Lane 4: 3 seconds; Lane 5: 48 seconds; Lane 6: 10 seconds.

Blocking/Dilution buffer: 5% NFDm/TBST.

Apart from the target band at 180-kDa, weak reactivity bands observed could be due to glycosylation (PMID: 24163131).

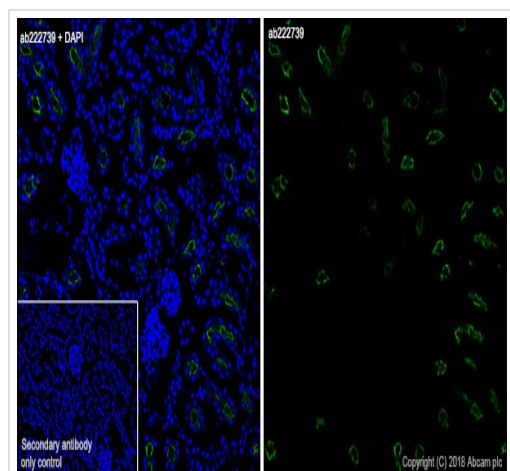


Immunohistochemical analysis of paraffin-embedded mouse lung tissue labeling Angiotensin Converting Enzyme 1 with ab222739 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on endothelial cells of mouse lung (PMID: 19451697). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Angiotensin Converting Enzyme 1 antibody [EPR22250-204] (ab222739)

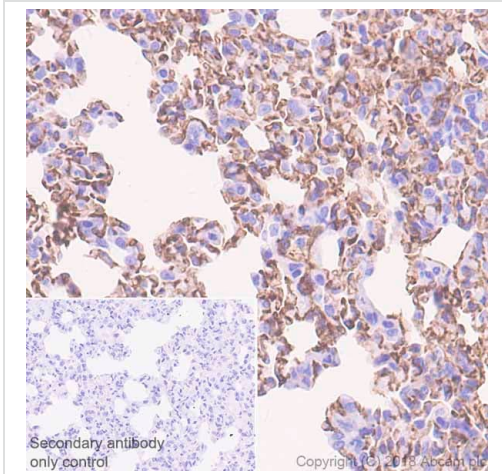


Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen mouse kidney tissue labeling Angiotensin Converting Enzyme 1 with ab222739 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Positive staining on mouse renal tubules (PMID 25664248) is observed.

The nuclear counter stain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution.

Immunohistochemistry (Frozen sections) - Anti-Angiotensin Converting Enzyme 1 antibody [EPR22250-204] (ab222739)







Immunohistochemical analysis of paraffin-embedded rat lung tissue labeling Angiotensin Converting Enzyme 1 with ab222739 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on endothelial cells of rat lung (PMID: 19451697). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Angiotensin Converting Enzyme 1 antibody [EPR22250-204] (ab222739)

Why choose a recombinant antibody?

 <b>Research with confidence</b> Consistent and reproducible results	 <b>Long-term and scalable supply</b> Recombinant technology
 <b>Success from the first experiment</b> Confirmed specificity	 <b>Ethical standards compliant</b> Animal-free production

Anti-Angiotensin Converting Enzyme 1 antibody [EPR22250-204] (ab222739)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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