# Angiotensin Converting Enzyme 1(JM59-32)

**Cat#: ET1705-36**

**Product Type:** Recombinant rabbit monoclonal IgG, primary antibodies

**Species reactivity:** Human, Mouse

**Applications:** WB, IHC, FC

**Molecular Wt.:** 160 kDa

**Clone number:** JM59-32

**Description :** Angiotensin-converting enzyme (ACE) is a carboxy-terminal dipeptidyl exo-peptidase that converts Angiotensin I to the potent vasopressive hormone, Angiotensin II. There are two isoforms of ACE, the pulmonary ACEP and the testicular ACET. ACEP is a glycoprotein expressed in vascular endothelial cells of the lung, liver, adrenal cortex, pancreas, kidney and spleen. The ACET isoform is expressed exclusively in adult testis by developing sperm cells, specifically, late pachytene spermatocytes. Additionally, ACE inactivates bradykinin, a vasodepressor peptide, and is involved in fluid/electrolyte homeostasis. Although it bears significant sequence homology to ACE, ACE2 shows a more restricted pattern of expression. ACE is expressed ubiquitously throughout the vasculature while ACE2 is expressed only in cardiac, renal and testicular cells.

**Immunogen:**
Purified recombinant.

**Positive control:**
Human lung cell lysate, mouse kidney cell lysate. Human kidney tissue, mouse testis tissue, mouse kidney tissue.

**Subcellular location:**
Secreted. Cell membrane.

**Database links:**
SwissProt: P12821(Human) P09470(Mouse)

**Recommended Dilutions:**
**WB:** 1:500-1:2,000 **IHC:** 1:100-1:500
**FC:** 1:50-1:100

**Storage Buffer:**
1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:**
Store at +4° C after thawing. Aliquot store at -20° C or -80° C. Avoid repeated freeze / thaw cycles.

**Purity:** ProA affinity purified.

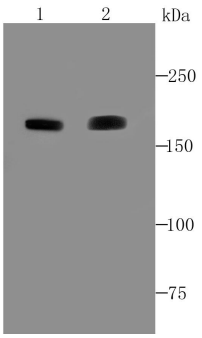


**Fig1:** Western blot analysis of ACE on human lung (1) and mouse kidney (2) cell lysate using anti-ACE antibody at 1/1,000 dilution.

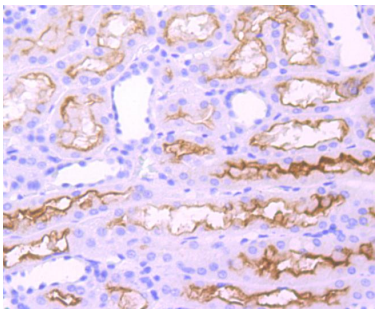

**Fig2:** Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-ACE antibody. Counter stained with hematoxylin.

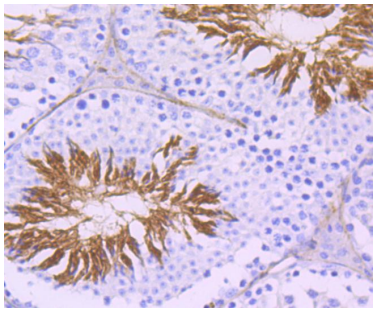

**Fig3:** Immunohistochemical analysis of paraffin-embedded mouse testis tissue using anti-ACE antibody. Counter stained with hematoxylin.

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Applications: WB=Western blot IP=Immunoprecipitation IHC=Immunohistochemistry IF=Immunofluorescence FC=Flow cytometry
Species Cross-Reactivity: H=human M=mouse R=rat Hm=hamster Mk=monkey Mi=mink C=chicken Dm=D.melanogaster X=Xenopus Z=zebrafish B=bovine Dg=dog Pg=pig Sc=S.

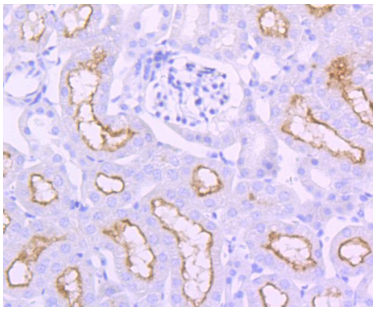

**Fig4:** Immunohistochemical analysis of paraffin-embedded mouse kidney tissue using anti-ACE antibody. Counter stained with hematoxylin.

**Background References**


1. Yang J et al. Pathological Ace2-to-Ace enzyme switch in the stressed heart is transcriptionally controlled by the endothelial Brg1-FoxM1 complex. Proc Natl Acad Sci U S A 113:E5628-35 (2016).
2. Zhou L et al. Multiple Genes of the Renin-Angiotensin System Are Novel Targets of Wnt/ß-Catenin Signaling. J Am Soc Nephrol 26(1):107-20 (2015).