

Anti-Angiotensin Converting Enzyme 1/Ace Antibody Picoband™

Catalog Number: A00251

About Ace

Angiotensin I converting enzyme (ACE), also called DCP or CD143 is a zinc-containing dipeptidyl carboxypeptidase widely distributed in mammalian tissues and is thought to play a critical role in blood pressure regulation. This gene is mapped to 17q23.3. 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.

Overview

Product Name	Anti-Angiotensin Converting Enzyme 1/Ace Antibody Picoband™
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Angiotensin Converting Enzyme 1/Ace Antibody Picoband™ catalog # A00251. Tested in WB applications. This antibody reacts with Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P09470

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of mouse Ace, which shares 70.3% and 91.9% amino acid (aa) sequence identity with human and rat Ace, respectively.
Predicted Reactive Species	Chicken
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized





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Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml



Anti-Angiotensin Converting Enzyme 1/Ace Antibody Picoband™ (A00251) Images



Figure 1. Western blot analysis of Ace using anti-Ace antibody (A00251).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: mouse lung tissue lysates,

Lane 2: mouse testis tissue lysates,

Lane 3: mouse stomach tissue lysates,

Lane 4: rat lung tissue lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Ace antigen affinity purified polyclonal antibody (Catalog # A00251) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Ace at approximately 180KD. The expected band size for Ace is at 150KD.

2 Publications Citing This Product

- 1. PubMed ID: 29969996, Telmisartan protects chronic intermittent hypoxic mice via modulating cardiac renin-angiotensin system activity
- 2. PubMed ID: 28765966, Aliskiren has chondroprotective efficacy in a rat model of osteoarthritis through suppression of the local reninangiotensin system

Visit <u>bosterbio.com/anti-ace-picoband-trade-antibody-a00251-boster.html</u> to see all 2 publications.

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