CREATIVE BIOMART®
Assay Kit

Angiotensin I Converting Enzyme Activity Assay Kit

Product Information

Cat.No.

Kit-2112

Product Overview

ACE1 Activity Assay Kit utilizes an active ACE1 to cleave a synthetic o-aminobenzoyl peptide (Abz-based peptide) substrate to release a fluorophore. The released Abz can be easily quantified using a fluorescence microplate reader. This assay kit is simple, rapid and can detect ACE activity as low as 10 mU in biological samples.

Size

100 assays

Description

Angiotensin I converting enzyme (ACE1, EC: 3.4.15.1), a dipeptidyl carboxypeptidase, is part of the renin-angiotensin system (RAS) that controls regulation of blood pressure by cleaving the C-terminal dipeptides of angiotensin I and bradykinin. It is found on the luminal surface of vascular endothelial cells, especially in pulmonary tissues. Elevated levels of ACE1 are found in patients suffering from sarcoidosis, leprosy, hyperthyroidism, acute hepatitis, primary biliary cirrhosis, diabetes mellitus, multiple myeloma, osteoarthritis, amyloidosis, Gaucher's disease, pneumoconiosis, histoplasmosis and miliary tuberculosis.

Applications

Detection of ACE1 activity in tissue/cell lysatesDetermination of enzymatic activity of purified ACE1

Target Species

Mammalian

Storage

Store kit at -20°C, protected from light. Briefly centrifuge small vials at low speed prior to opening. Read entire protocol before performing the assay.• ACE1 Lysis Buffer and ACE1 Dilution Buffer: Ready to use. Store at -20°C. Bring to room temperature before use.• ACE1 Lysis Buffer: Ready to

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use. Store at -20°C. Thaw before use.• ACE1 Positive Control: Store at -20°C. Avoid multiple freeze/thaw of the enzyme. Use within 6 months.• ACE1 Substrate: Ready to use. Store at -20°C. Thaw before use.• Abz Standard: Ready to use. Store at -20°C.

Kit Components

ACE1 Assay Buffer: 20 mlACE1 Lysis Buffer: 40 mlACE1 Dilution Buffer: 1 mlACE1 Positive control: 5 µlACE1 Substrate: 300 µlAbz-Standard (1 mM): 100 µl

Detection method Fluorometric (Ex/Em = 330/430 nm)

Compatible Sample Types

• Animal tissues: Lung, heart, kidney• Serum, plasma

Features & Benefits

• Simple one-step reaction• Takes only 1-2 hrs• Non-radiometric fluorescent detection• HTP adaptable

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