CREATIVE BIOMART®
Assay Kit

Angiotensin I Converting Enzyme Inhibitor Screening Kit

Product Information

Cat.No. Kit-2113

Product Overview

ACE1 Inhibitor Screening Kit can be used to screen for potent inhibitors of ACE1 activity to regulate hypertension. It utilizes the ability of an active ACE1 to cleave a synthetic oaminobenzoyl peptide (Abz-based peptide substrate to release a free fluorophore). The released Abz can be easily quantified using a fluorescence microplate reader. In the presence of an ACE1 specific inhibitor, the enzyme loses its peptidase activity which results in decrease of fluorescence intensity. This assay kit is simple and can be used to identify and characterize ACE1 inhibitors in a highthroughput format.

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. In addition, elevated levels of ACE1 are found in sarcoidosis, leprosy, hyperthyroidism, acute hepatitis, primary biliary cirrhosis, diabetes mellitus, multiple myeloma, osteoarthritis, amyloidosis, Gaucher disease, pneumoconiosis, histoplasmosis and miliary tuberculosis.

Applications

Screening/studying/characterizing inhibitors of ACE1

Storage

Store kit at -20°C, protected from light. Briefly centrifuge small vials prior to opening. Read entire protocol before performing the assay.• ACE1 Assay Buffer and ACE1 Dilution Buffer: Store at -20 °C or 4 °C. Bring to room temperature before use.• ACE1 Enzyme: 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.• ACE1 Inhibitor: Ready to use. Store at -20°C. Thaw before use.

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Kit Components

ACE1 Assay Buffer: 20 mlACE1 Dilution Buffer: 1 mlACE1 Enzyme: 50 µlACE1 Substrate: 300 µlACE1 Inhibitor (10 mM Captopril): 100 µl

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

Compatible Sample Types

Small Molecules/Ligands

Features & Benefits

• Simple, rapid assay.• Takes only 1-2 hrs• Non-radiometric fluorescent screening process• HTP adaptable

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