

Angiotensin I Converting Enzyme (ACE1) Inhibitor Screening Kit

Cat. No. Kit-2408 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

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. 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 o-aminobenzoyl 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 high-throughput format.

Applications	Screening/studying/characterizing inhibitors of ACE1
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Storage	-20°C
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Shipping	Gel Pack
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Size	100 assays
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 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Kit Components	ACE1 Assay Buffer; ACE1 Dilution Buffer; ACE1 Enzyme; ACE1 Substrate; ACE1 Inhibitor (10 mM Captopril)
Detection method	Fluorometric (Ex/Em = 330/430 nm)
Features & Benefits	Simple one-step reaction; Takes only 1-2 hrs; Non-radiometric fluorescent screening process; HTP adaptable

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