

Angiotensin II Converting Enzyme Inhibitor Screening Kit

Cat. No. Kit-2101 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

ACE2 Inhibitor Screening Kit can be used to screen for potent inhibitors of ACE2 activity, it utilizes the ability of an active ACE2 to cleave a synthetic MCA based peptide substrate to release a free fluorophore. The released MCA can be easily quantified using a fluorescence microplate reader. In the presence of an ACE2 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 ACE2 inhibitors in a high-throughput format.

Size

100 assays

Description

Angiotensin II converting enzyme (ACE2, EC 3.4.17.23), a carboxypeptidase, is part of the renin-angiotensin system (RAS) that controls regulation of blood pressure by cleaving the C-terminal dipeptide of Angiotensin II to convert it into Angiotensin 1-7. It also cleaves Angiotensin I to produce Ang 1-9, of unknown function. ACE2 is a receptor of human coronaviruses, such as SARS and HCoV-NL63. It is expressed on the vascular endothelial cells of heart and kidney. The inhibitors of ACE2 could be able to regulate hypertension by changing vascular permeability. Screening for small molecule and peptide inhibitors might also help in finding treatment for coronavirus mediated infection.

Applications

Screening/characterizing/studying ACE2 inhibitors/activators

Storage

Store kit at -20°C, protected from light. Briefly centrifuge small vials prior to opening. Read entire protocol before performing the assay. ACE2 Assay Buffer and ACE2

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Dilution Buffer: Store at -20 °C or 4 °C. Bring to room temperature before use. ACE2 Enzyme: Store at -20°C. Thaw before use. Avoid multiple freeze/thaw of the enzyme. Use within 3 months. ACE2 Substrate: Ready to use. Store at -20°C. Thaw before use. ACE2 Inhibitor: Store at -20°C. Thaw before use. Avoid multiple freeze/thaw of the inhibitor.

Kit Components

ACE2 Assay Buffer: 25 ml
ACE2 Dilution Buffer: 1.5 ml
ACE2 Enzyme: 20 µl
ACE2 Substrate: 200 µl
ACE2 Inhibitor (0.5 mM): 5 µl

Detection method

Fluorescence (Ex/Em = 320/420 nm)

Features & Benefits

- Simple and reliable test to screen ACE2 inhibitors/activators
- High-throughput compatible
- Includes Inhibitor Control

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