CREATIVE BIOMART®
Assay Kit

ACE2 Inhibitor Screening Assay Kit

Product Information

Common Name

ACE

Cat.No. Kit-2588

Product Overview

The ACE2 Inhibitor Screening Assay Kit is designed to measure the exopeptidase activity of ACE2 for screening and profiling applications. The ACE2 assay kit comes in a convenient 96-well format, with purified ACE2, its substrate, and ACE2 buffer for 96 reactions.

Description

Angiotensin converting enzyme 2 (ACE2) is an exopeptidase that catalyzes the conversion of angiotensin II to angiotensin 1-7 and L-phenylalanine. Angiotensin II is part of the classical renin angiotensin system (RAS), a hormone system that regulates fluid balance, blood pressure and maintains vascular tone. ACE2 has been also proved to be the receptor for the human respiratory coronavirus NL63, the SARS-coronavirus (SARS-CoV) and the novel coronavirus 2019-nCoV/SARS-CoV-2.

Stability

Up to 6 months from date of receipt, when stored as recommended.

Kit Components

ACE2, 2 µg, -80 °C
ACE2 Fluorogenic Substrate, 3 ml, -80 °C
ACE2 Buffer, 3 ml, -20 °C
96-well black microplate, 1, Room Temp
Avoid multiple freeze/thaw cycles!

Materials Required but Not Supplied

Adjustable micropipettor and sterile tips
Fluorescent microplate reader

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Assay Protocol

All samples and controls should be tested in duplicate.

1. Thaw ACE2 on ice. Upon first thaw, briefly spin tube containing enzyme to recover full contents of the tube. Note: ACE2 is sensitive to freeze/thaw cycles. Avoid multiple freeze/thaw cycles. Do not re-use thawed aliquots or diluted enzyme.
2. Prepare Enzyme solution (0.5 ng/µl ACE2) by diluting ACE2 in ACE2 Buffer.
3. Add 20 µl of Enzyme solution (0.5 ng/µl ACE2) to each well designated "Positive Control" and "Test Inhibitor," and 20 µl of ACE2 buffer to each well designated "Blank."
4. Add 5 µl of Test Inhibitor solution to each well designated "Test Inhibitor." For the wells labeled "Positive Control" and "Blank," add 5 µl of 10% DMSO in water (Inhibitor buffer). Note: Keep the final concentration of DMSO in the reaction ≤1%.
5. Add 25 µl of ACE2 Fluorogenic Substrate to all wells. Protect from light and incubate reaction at room temperature for 60 minutes.

	Positive Control	Test Inhibitor	Blank
Enzyme solution (0.5 ng/µl ACE2)	20 µl	20 µl	-
ACE2 Buffer	-	-	20 µl
Test inhibitor	-	5 µl	-
10% DMSO in water (Inhibitor buffer)	5 µl	-	5 µl
ACE2 Fluorogenic Substrate	25 µl	25 µl	25 µl
Total	50 µl	50 µl	50 µl

6. Read fluorescence intensity of the samples (Ex/Em = 555 nm/585 nm) in an appropriate microplate reader.

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