CREATIVE BIOMART®
Assay Kit

Dihydrofolate Reductase Inhibitor Screening Kit

Product Information

Cat.No. Kit-2100

Product Overview

Dihydrofolate Reductase Inhibitor Screening Kit is designed for screening DHFR inhibitors. MTX is used as a positive control. The DHFR activity is monitored by the reduction in absorbance reading at OD340 nm, while potential inhibitors arrest this decrease. The kit is adapted to a 96-well format and provides a rapid, simple, sensitive, and reliable test for high-throughput screening of DHFR inhibitors.

Size

100 assays

Description

Dihydrofolate Reductase (DHFR; 5,6,7,8-tetrahydrofolate NADP oxidoreductase; EC 1.5.1.3), is a ubiquitous enzyme that is present in all eukaryotic and prokaryotic cells, playing a key role in folate metabolism. Inhibition of DHFR results in reduction of the intracellular level of tetrahydrofolate, inhibition of RNA and DNA synthesis, and cell death. For this reason, DHFR has been a critically important therapeutic target for anti-tumor drugs. Methotrexate (MTX) is the most widely investigated inhibitor of DHFR, inhibiting both prokaryotic and eukaryotic DHFRs, and has shown antitumor activity.

Applications

Screening/characterizing/studying ACE2 inhibitors/activators

Storage

Upon receiving the kit, store DHFR Substrate at -80°C. Store other components at -20°C. Briefly centrifuge small vials prior to opening. Read entire protocol before performing the assay. Upon opening, use within two months.DHFR Assay Buffer: Warm to room temperature before use. Store at 4°C or -20°C.DHFR Substrate: Aliquots and store at -80°C, protect from light. Avoid repeated freeze/thaw.Dihydrofolate Reductase: Store at –20°C. Avoid repeated freeze/thaw. Keep on ice while in use.NADPH: Reconstitute with 200 μl DHFR Assay Buffer to generate NADPH Stock Solution. Aliquot and store at –20°C. Keep on ice while in use.Methotrexate: Aliquot and store at

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Kit Components

DHFR Assay Buffer: 35 mlDHFR Substrate: 450 µlDihydrofolate Reductase: 30 µlNADPH: 1 vialMethotrexate (10 mM): 25 µl

Detection method Absorbance (OD= 340 nm)

Features & Benefits

• Simple and reliable test to screen DHFR inhibitors/activators• High-throughput compatible• Includes Inhibitor Control (Methotrexate)

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