CREATIVE BIOMART®
Assay Kit

HMG-CoA Reductase Activity/Inhibitor Screening Kit

Product Information

Cat.No. Kit-2150

Product Overview

HMG-CoA Reductase Activity Assay Kit measures utilization of NADPH, which can be measured by the decrease of absorbance (OD 340 nm). The kit is suitable for measuring activity of purified enzyme and screening inhibitors/activators of HMG-CoA reductase. The limit of detection is below 0.05 mU.

Size

100 assays

Description

HMG-CoA reductase (3-hydroxy-3-methyl-glutaryl-CoA reductase or HMGR) (EC 1.1.1.34) is the rate-controlling enzyme of the mevalonate pathway, the metabolic pathway that produces cholesterol from acetyl-CoA. In an NADPH-dependent reaction, HMG-CoA reductase reduces HMG-CoA to generate mevalonate and CoA. The enzyme is target of a group of cholesterol-lowering drugs known as statins. Inhibition of HMG-CoA reductase induces expression of LDL receptors in the liver, which lowers plasma concentration of cholesterol.

Applications

Measurement of HMG-CoA reductase activityScreening/studying/characterizing HMG-CoA reductase 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.HMG-CoA Reductase Assay Buffer: Pre-warm buffer to 37°C before use.HMG-CoA Reductase: Reconstitute in 550 µl of HMG-CoA Reductase Assay Buffer. Aliquot and store at -20°C. Avoid repeated freeze/thaw. Keep on ice during use.HMG-CoA: Reconstitute in 1.3 ml dH2O, make sure the material is completely dissolved. Aliquot and store at -20°C. Avoid repeated freeze/thaw. Keep on ice while in use.NADPH: Reconstitute in 440 µl dH2O, make sure the material is completely dissolved. Aliquot and store at -20°C. Avoid repeated

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freeze/thaw. Keep on ice while in use.Inhibitor (Atorvastatin, 10 mM): Bring to room temperature before use.

Kit Components

HMG-CoA Reductase Assay Buffer: 20 mlHMG-CoA Reductase: 1 VialHMG-CoA: 1 VialNADPH: 1 VialInhibitor (Atorvastatin, 10 mM): 10 µl

Detection method Absorbance (OD 340 nm)

Compatible Sample Types

Partially purified and recombinant enzyme

Features & Benefits

• Simple, rapid & convenient• Limit of detection: below 0.05 mU• Includes inhibitor (Atorvastatin)

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