

Product datasheet

HMG-CoA Reductase Activity Assay Kit (Colorimetric) ab204701

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Overview

Product name	HMG-CoA Reductase Activity Assay Kit (Colorimetric)
Detection method	Colorimetric
Sample type	Purified protein
Assay type	Enzyme activity
Assay time	0h 10m
Product overview	HMG-CoA Reductase Activity Assay Kit (Colorimetric) (ab204701) is suitable for measuring activity of purified HMG-CoA reductase or for screening inhibitors/activators of HMG-CoA reductase. It is based on the consumption of NADPH by the enzyme, which can be measured by the decrease of absorbance at OD=340 nm. The limit of detection is below 0.05 mU.

Notes

This product is manufactured by BioVision, an Abcam company and was previously called K588 H mg-CoA Reductase Activity/Inhibitor Screening Kit (Colorimetric). K588-100 is the same size as the 100 test size of ab204701.

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.

Platform Microplate reader

Properties

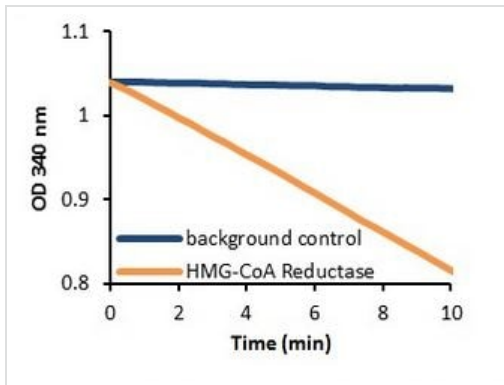
Storage instructions Store at -20°C. Please refer to protocols.

Components	100 tests
Atorvastatin Solution	1 x 10µl
HMG-CoA	1 vial
HMG-CoA Reductase	1 vial

Components	100 tests
HMG-CoA Reductase Assay Buffer	1 x 20ml
NADPH V	1 vial

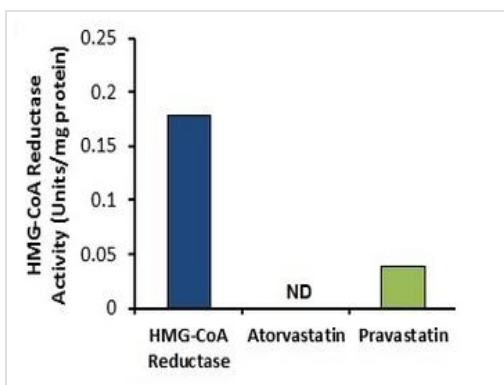
Function	This transmembrane glycoprotein is involved in the control of cholesterol biosynthesis. It is the rate-limiting enzyme of sterol biosynthesis.
Pathway	Metabolic intermediate biosynthesis; (R)-mevalonate biosynthesis; (R)-mevalonate from acetyl-CoA: step 3/3.
Sequence similarities	Belongs to the HMG-CoA reductase family.
Cellular localization	Endoplasmic reticulum membrane. Peroxisome membrane.

Images



Activity of HMG-CoA Reductase (positive control included in the kit) compared to the background control with no enzyme.

HMG-CoA Reductase Activity Assay Kit
(Colorimetric)



Comparison of HMG-COA Reductase activity in absence or presence of specific inhibitors such as atorvastatin (100 μ M) and pravastatin (10 ng/ μ l); ND: Not Detectable.

HMG-CoA Reductase Activity Assay Kit
(Colorimetric)

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