

## Product datasheet

# HMG-CoA Reductase Activity Assay Kit (Colorimetric) ab204701

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### Overview

<b>Product name</b>	HMG-CoA Reductase Activity Assay Kit (Colorimetric)
<b>Detection method</b>	Colorimetric
<b>Sample type</b>	Purified protein
<b>Assay type</b>	Enzyme activity
<b>Assay time</b>	0h 10m
<b>Product overview</b>	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

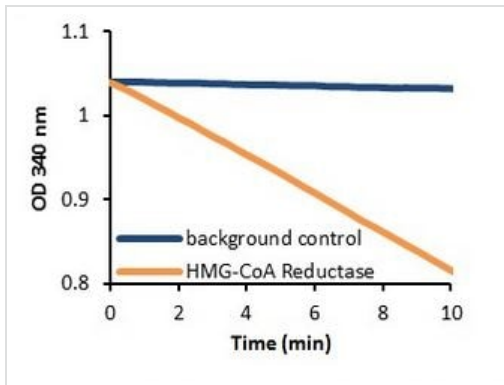
**Storage instructions** Store at -20°C. Please refer to protocols.

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

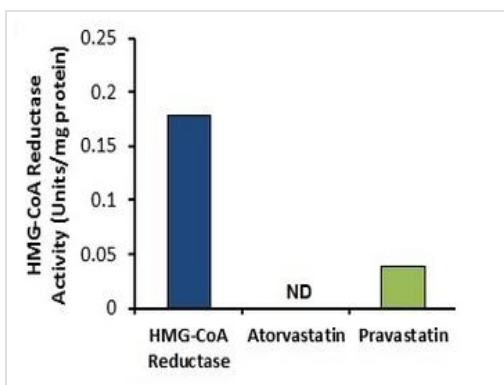
<b>Function</b>	This transmembrane glycoprotein is involved in the control of cholesterol biosynthesis. It is the rate-limiting enzyme of sterol biosynthesis.
<b>Pathway</b>	Metabolic intermediate biosynthesis; (R)-mevalonate biosynthesis; (R)-mevalonate from acetyl-CoA: step 3/3.
<b>Sequence similarities</b>	Belongs to the HMG-CoA reductase family.
<b>Cellular localization</b>	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  $\mu$ M) and pravastatin (10 ng/ $\mu$ l); ND: Not Detectable.

HMG-CoA Reductase Activity Assay Kit  
(Colorimetric)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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