

Cholesterol Assay Kit - HDL and LDL/VLDL ab65390

★★★★★ [10 Abreviews](#) [219 References](#) [4 图像](#)

概述

产品名称	Cholesterol Assay试剂盒- HDL and LDL/VLDL
检测方法	Colorimetric/Fluorometric
样品类型	Urine, Serum, Plasma, Other biological fluids, Tissue Lysate
检测类型	Quantitative
检测时间	1h 00m
产品概述	Cholesterol Assay Kit ab65390 uses a simple method to quantify total cholesterol, free cholesterol, and cholesterol esters in mammalian samples. It also includes an easy method to separate HDL and LDL / VLDL cholesterol.

In the cholesterol assay protocol, cholesterol oxidase acts on free cholesterol to produce a chemical which reacts with a probe to generate color (570 nm) and fluorescence (Ex/Em = 538/587 nm). Cholesterol esterase is used to hydrolyze cholesteryl ester into free cholesterol.

If cholesterol esterase is included in the assay, total cholesterol is measured. If it is not included, free cholesterol is measured. The amount of cholesterol ester can be calculated by subtracting free cholesterol from total cholesterol.

Note: this kit is primarily designed for use with serum and plasma samples. It has been successfully used with liver samples (including in [Chang et al. 2019](#), [Yu et al. 2018](#), and [Sadh et al. 2017](#)); sample preparation in liver (and other tissue) samples may need optimization and modification by the user for successful use.

Cholesterol assay protocol summary:

- use complete sample for cholesterol measurement; or to separate HDL and LDL/VLDL, mix sample with precipitation buffer, incubate for 10 min, centrifuge for 10 min at 2,000 g, keep HDL fraction supernatant, repeat centrifugation and resuspend LDL/VLDL fraction pellet
- for assay, add samples and standards to wells
- add total cholesterol reaction mix (with esterase) or free cholesterol reaction mix (without esterase) and incubate for 60 min at 37°C
- analyze with microplate reader

说明

This product is manufactured by BioVision, an Abcam company and was previously called K613 HDL and LDL/VLDL Quantification Colorimetric/Fluorometric Kit. K613-100 is the same size as the 100 test size of ab65390.

Other cholesterol assay kits include:

- **Cell-based Cholesterol assay kit ab133116**
- **Cholesterol/Cholesterol Ester assay kit ab65359**
- **Cholesterol Efflux assay kit ab196985**
- **Cholesterol Uptake assay kit ab236212**

Review our **Metabolism Assay Guide** to learn about assays for metabolites, metabolic enzymes, mitochondrial function, and oxidative stress, and also about how to assay metabolic function in live cells using your plate reader.

How other researchers have used Cholesterol Assay Kit ab65390

This cholesterol assay kit has been used in publications in a variety of sample types, including:

- Human: serum¹
- Mouse: plasma and liver tissue², plasma³, serum^{4,1}
- Rat: liver tissue⁵, serum¹, plasma⁶
- Fish: *Z. temminckii* serum⁷

References: 1 - Lin C et al 2018; 2 - Change RC et al 2019; 3 - Hinder et al 2019, Havighorst A et al 2019, Guo X et al 2017, Wen et al 2018, Fernandes GW et al 2018, Ahnstedt H et al 2018, Dumas SN and Ntambi JM 2018; 4 - Liu J et al 2018, Cui XB et al 2019, Rohm et al 2018; 5 - Yu S et al 2018; 6 - Park JB 2017; 7 - Chae Y et al 2018

平台

Microplate reader

性能

存放说明

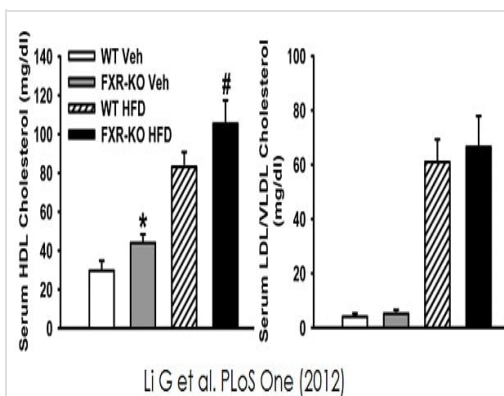
Store at -20°C. Please refer to protocols.

组件	100 tests
2X LDL/VLDL Precipitation Buffer	1 x 10ml
Assay Buffer II	1 x 25ml
Cholesterol Esterase	1 vial
Cholesterol Standard	1 x 100µl
Enzyme Mix I	1 vial
OxiRed Probe	1 x 200µl

相关性

HDL (high-density-lipoprotein), LDL (low-density lipoprotein) and VLDL (very low-density lipoprotein) are lipoproteins that act as carrier proteins for cholesterol. The regulation of HDL-cholesterol and LDL-cholesterol plays a central role in various disease development. It is well known that low levels of HDL and high level of LDL are associated with an increased risk of cardiovascular events.

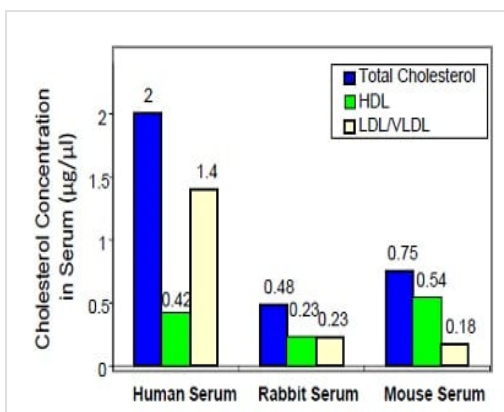
图片



HDL and LDL/VLDL Cholesterol Assay Kit (ab65390)

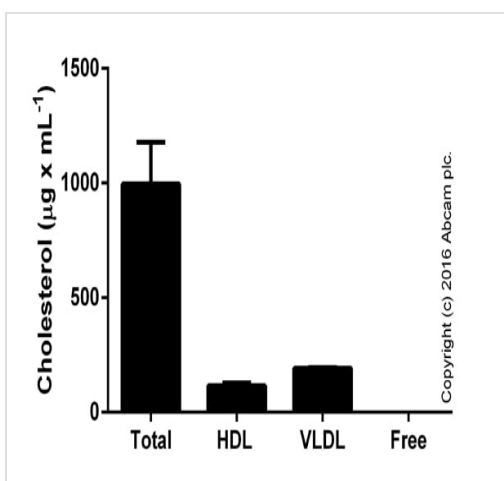
Li G et al., PLoS One, 7, e35895, 2012 Reproduced under the Creative Commons license <http://creativecommons.org/licenses/by/4.0/>

Wild type (WT) or farnesoid X receptor knock-out (FRX-KO) mice were treated with either vehicle (Veh) or a high fat-containing diet (HFD) for 16 weeks. Serum HDL (top) and LDL/VLDL cholesterol (bottom) from 5-7 mice/group was measured using ab65390 following protocol instructions. An asterisk (*) means P<0.05 between WT and FXR-KO vehicle group. A pound (#) indicates P<0.05 between Wt and FXR-KO-HFD group. *Image obtained from Li G et al., PLoS One, 2012; 7(4): e35895*



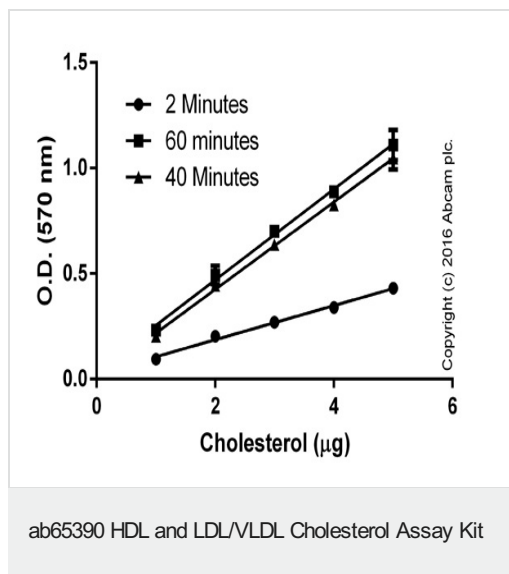
Functional Studies - HDL and LDL/VLDL Cholesterol Assay Kit (ab65390)

Measurement of total cholesterol, HDL, LDL/VLDL from serum samples. Total Cholesterol (blue), HDL (green), and LDL/VLDL (cream) cholesterol were measured following the kit protocol.



ab65390 HDL and LDL/VLDL Cholesterol Assay Kit

Rat serum samples were processed according to the protocol. The quantity of total (dilution range 1:10-1:100), HDL (dilution range 1:1-1:10), LDL/VLDL (dilution range 1:1-1:10) and free cholesterol (neat) was measured colourimetrically, in duplicates, after 40 minutes.



Signal from standard curve was measured colourimetrically over a period of time. Background signal subtracted and each point on the curve represents duplicate values (+/- SD).

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