

# Determiner L LDL-C Outlines

## Selective Solubilization Method

Determiner L LDL-C test kit is for the quantitative measurement of LDL cholesterol (LDL-C) in human serum or plasma.

### Summary

LDL-C, the most potent atherosclerosis-promoting lipoprotein, is a major risk factor for coronary artery disease. The National Heart, Lung, and Blood Institute (U.S.) (NHLBI) launched the National Cholesterol Education Program (NCEP) with the guidelines for LDL-C. In Japan, the Japan Atherosclerosis Society (JAS) Guideline Investigating Committee proposed the Guidelines for Diagnosis and Management of Hyperlipidemia for Prevention of Atherosclerosis.

This ready-to-use product can measure LDL-C directly with a unique surfactant that selectively solubilizes LDL with less interference of substances in a sample.

### Characteristics

1. Ready to use
2. Direct measurement of LDL-C
3. No interference from substances (at normal concentration) in a sample
4. Prevent cell/ probe contamination
5. Excellent correlation with the Friedewald formula

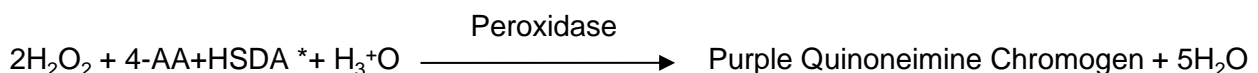
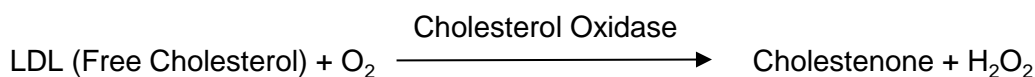
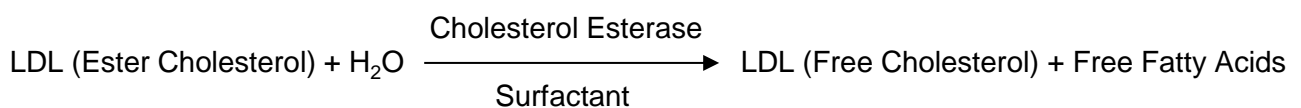
### Intended for Use

For the *in vitro* quantitative measurement of LDL-C in human serum or plasma.

### Principle

This measurement uses a unique surfactant to selectively solubilize LDL-C. With cholesterol esterase and cholesterol oxidase, hydrogen peroxide is liberated from LDL-C.

Cholesterol esterase releases free cholesterol. Then, cholesterol oxidase releases hydrogen peroxide from free cholesterol, which reacts with 4-AA and HSDA in the presence of peroxidase to generate quinoneimine chromogen. This surfactant solubilizes only LDL, and inhibits other reactions with non-LDL lipoproteins (such as HDL, VLDL and chylomicrons) . The concentration of LDL-C in the sample is determined by absorbance.

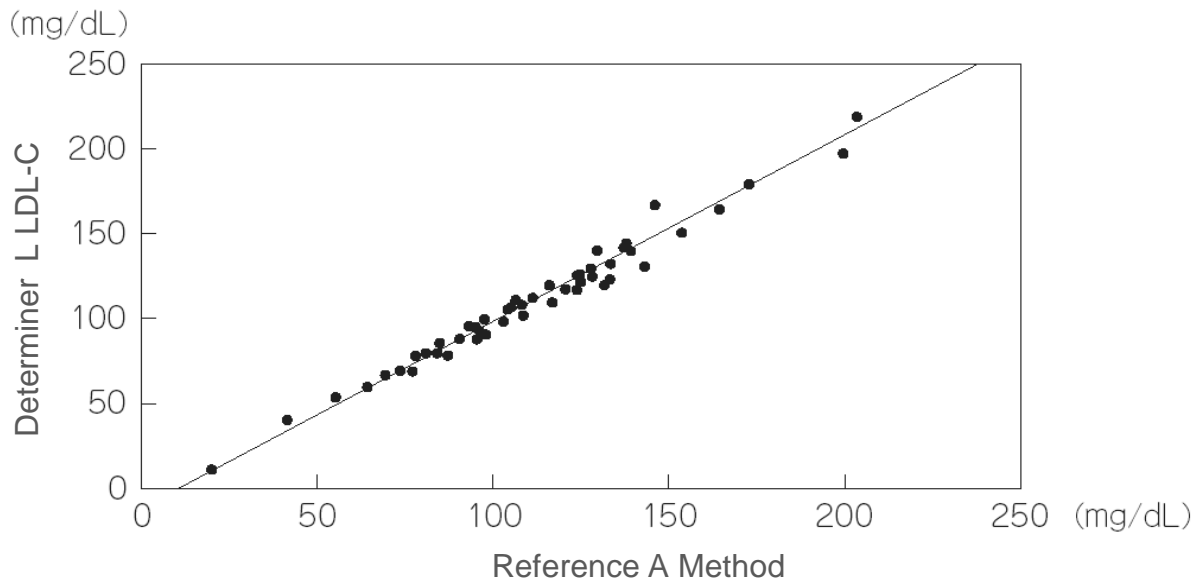


\*HSDA : Sodium N-(2-hydroxy-3-sulfopropyl)-3,5-dimethoxyaniline

## ● Correlation

The correlation between this method and Reference A Method is as follows.  
( X = Reference A Method; Y = Determiner L LDL-C)

Correlation:  $Y = 1.057 X - 7.8$ .  $r = 0.988$  (n = 50).



## ● Storage and Shelf Life

1. Storage: Store in a dark and cool place (2-8°C)
2. Shelf life: 15 months