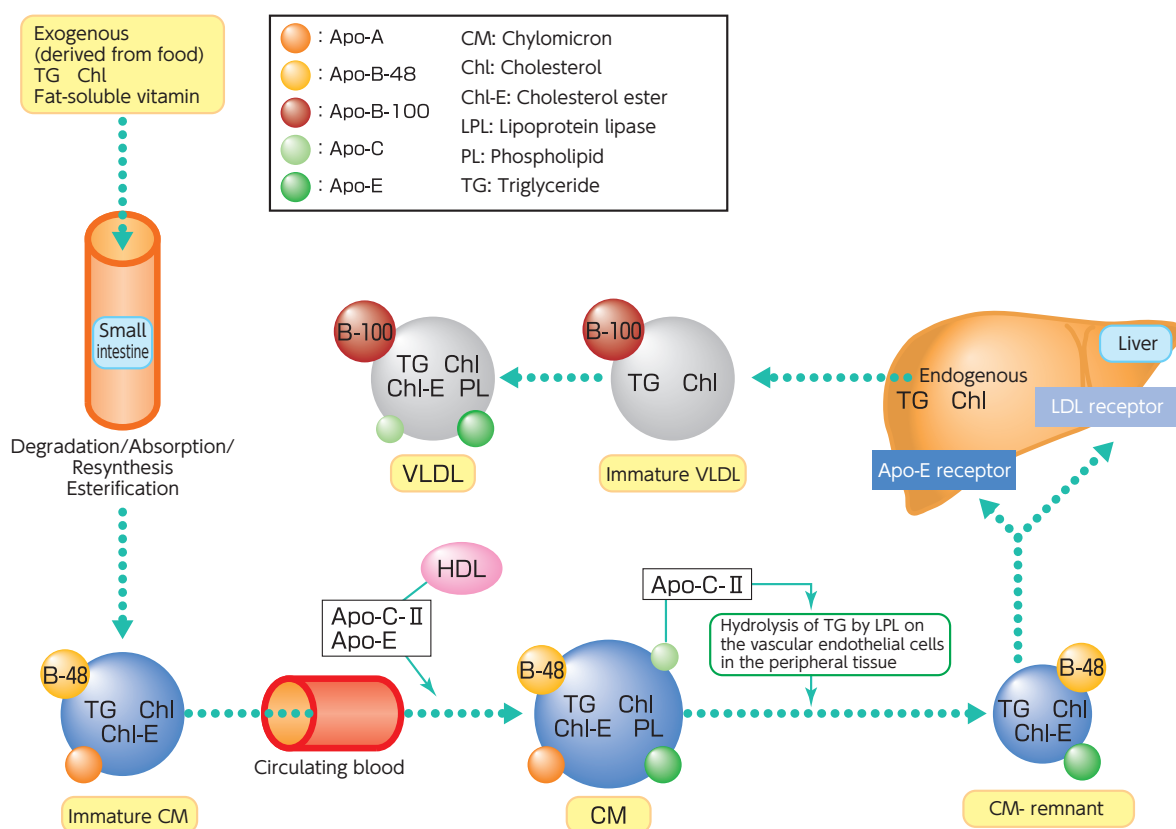


Metabolic Research Reagents

# Apolipoprotein B-48 ELISA KIT

## What is Apolipoprotein B-48 (Apo B-48)?

Apolipoprotein B-48 is a specific structural protein in lipoproteins derived from the small intestine, such as chylomicron (CM) and chylomicron remnants. Since one role of CM is to transfer exogenous lipids derived from food to the liver or peripheral tissues, the measurement of Apo B-48 is considered a best marker for observation of exogenous lipid transportation after food intake.



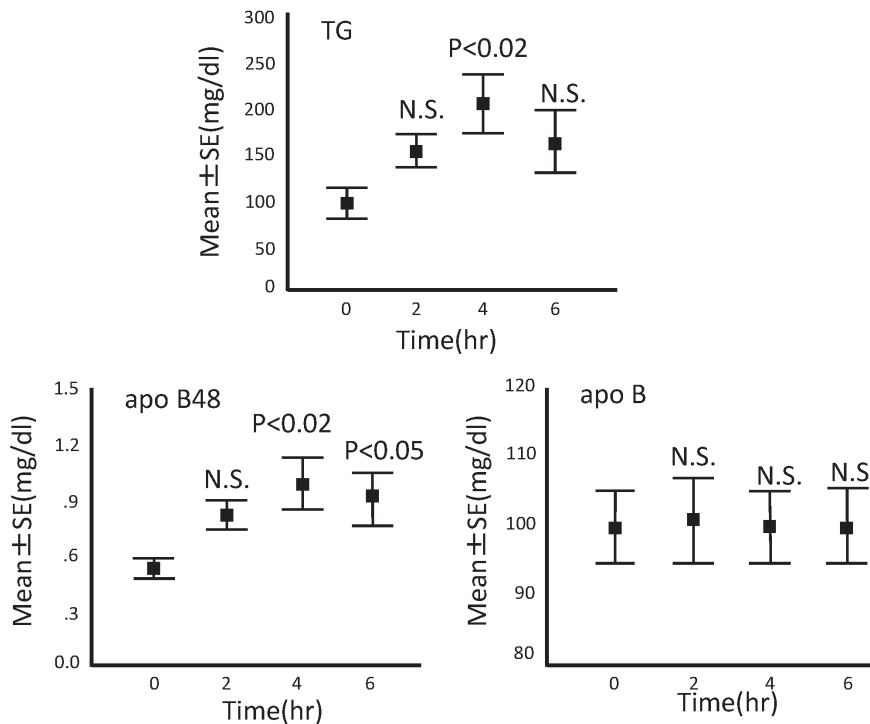
### Point

- Changes in exogenous and endogenous cholesterol can be analyzed by measuring LDL cholesterol, HDL cholesterol, and Apo-B48 of the same sample (ref. 2).
- Fasting Apo B-48 level may be a marker of postprandial hyperlipidemia (ref. 9).
- Fasting Apo B-48 level is known to be useful for the evaluation of risks for developing atherosclerotic diseases: peripheral arterial disease (PAD), cardiovascular disease, and vascular endothelial dysfunction.
- It is also considered useful for the evaluation of CM remnants that have been implicated as a cause of atherosclerosis in the cardiovascular system.

# Human Apo B-48 ELISA Kit

Apo B-48 is a structural protein specific to Chylomicron and useful for observation of exogenous lipid transportation derived from food.

## Changes in postprandial TG, Apo B-48, and Total Apo B



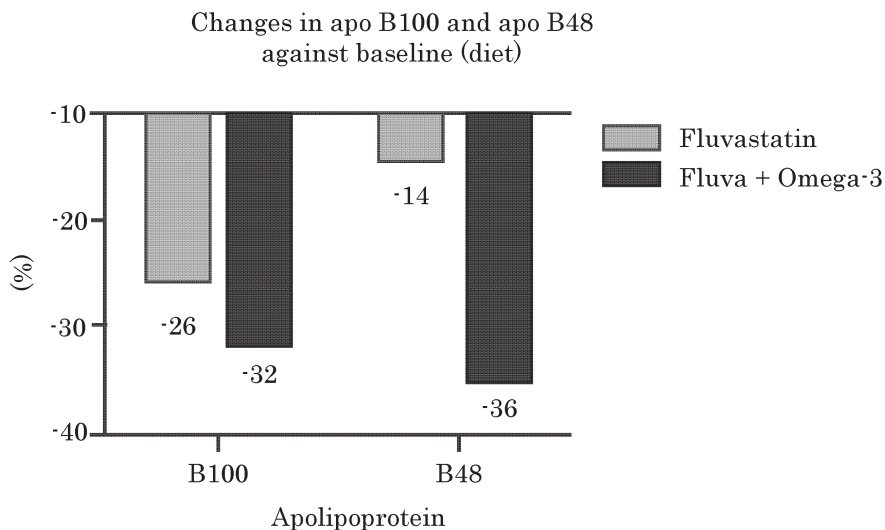
6 healthy men and 6 healthy women.  
39 to 60 years old (Mean 52 years old).  
After 12-hour fasting  
Loading of oral OFTT cream (17 g/m<sup>2</sup>)

Although TG and Total Apo B are not correlated, TG and Apo B-48 are correlated.

Nakano, T. *et al.* Ann Clin Biochem, Vol.48, p57-64, Jan 2011 (ref. 5).

## Comparison of Apo B-48 and Apo B-100 between the administration of Fluvastatin only and Fluvastatin + Omega-3 fatty acid

Omega 3 fatty acids induce a marked reduction of Apo B-48 when added to fluvastatin in patients with type 2 diabetes and mixed hyperlipidemia



Patients with type 2 diabetes + hyperlipidemia  
Fluvastatin 80 mg group  
Fluvastatin 80 mg + Omega-3 fatty acid 4 g group  
Blood collection after 12-hour fasting

Easily evaluate dietary response by observing Apo B-48

Valdivielso, P. *et al.* Cardiovasc Diabetol, 8;8:1, Jan 2009 (ref. 1)

# Rabbit Apo B-48 ELISA Kit

Utilize Rabbit Apo B-48 ELISA for translational research on hyperlipidemia or arteriosclerosis.

## Fluctuation of Apo B-48, Triglyceride, and Cholesterol in blood after administration of Ezetimibe

Rabbit: NZW, Male, 10-Week-old, body weight 2.5 to 3.0 kg

High-fat diet

[Day 1] High-fat diet

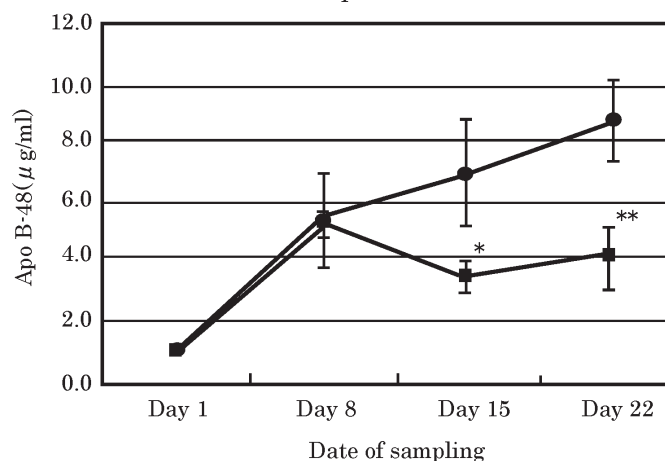
[Day 8] Divided into 2 groups

● Control group: Saline 3 ml, n=3

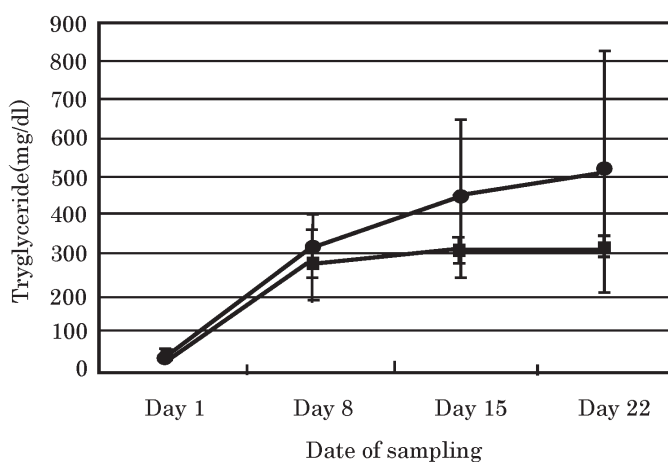
■ Ezetimibe group: Oral administration 0.6 mg/kg/day, Saline 3 ml, n=3  
SE, \* p<0.05, \*\* p<0.01

Although significant reduction was not confirmed with TG and Cho, Apo B-48 significantly was reduced

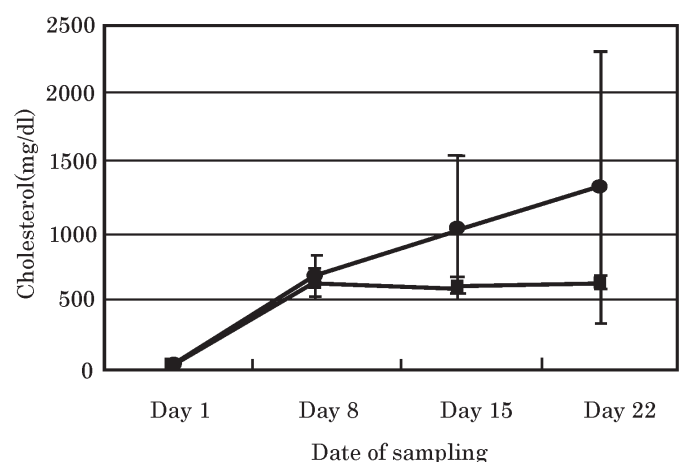
(A) Apo B-48 levels



(B) Triglyceride levels



(C) Cholesterol levels



# Apolipoprotein B-48 ELISA KIT SERIES

## References

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Nakajima K, et al., *Advances in Clinical Chemistry*, Vol.64, p117-77, 2014.

## Code/Product name/Measurement range/Price (96 well/kit)

Wako code	Product name	Measurement range
637-10641	LBIS Human Apo B-48 ELISA Kit	2.5 - 160 ng/ml
622-04909	LBIS Rabbit Apo B-48 ELISA Kit	19.5 - 1,250 ng/ml

## ▲ Caution for safety

- The products on the brochure are research reagents. Please use only for the purpose of research. Do not use for the purpose of diagnosis or treatment.
- Keep the product in a cool dark place and use it by the expiration date.
- Use properly after reading the instructions thoroughly.
- Since the product contains sulfuric acid, be sure to handle it carefully.
- Follow the waste disposal guidelines of your institution after use.

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