Apolipoprotein B-48

Analyte: Apolipoprotein B-48

Specimen Type: Serum, EDTA Plasma

Optimum Volume: 0.5 mL

2-8°C: 5 days  -20°C: 26 days  -70°C: 2 years

Reporting units: mg/dL

Method: ELISA

Biological or Clinical Significance:
Apolipoprotein B48 (ApoB48) is the primary protein component of the chylomicrons (CM). The lipid and other components of the particle are organized about a single ApoB48 molecule. ApoB48 is specifically distributed in small intestine-derived CM. Extended postprandial hyperlipidemia is associated with insulin resistance, postprandial hyperglycemia, metabolic syndrome, thickening of the carotid tunica intima and media (atherosclerosis), and myocardial infarction. To assess and monitor these conditions, it may be useful to analyze and monitor ApoB48.

ApoB48 contains the same amino acid sequence that is present in the N-terminal 48% of ApoB100, the primary apolipoprotein secreted from the liver in VLDL particles. The concentration of ApoB48 in the blood stream during fasting is comparatively low, at only 1% of the concentration of ApoB100.

Principle of Test Method:
The Apo B-48 assay is a solid-phase ELISA designed to measure human Apo B-48 in serum and plasma. It employs the quantitative sandwich enzyme immunoassay principle.