

Lipoprotein (a) and Low-Density Lipoprotein Cholesterol, Serum

Test ID: LPALD

Useful for:

Evaluation of the contribution of lipoprotein (a) (Lp[a])-cholesterol within measured low-density lipoprotein cholesterol

Evaluation of increased risk for cardiovascular disease and events:

- Most appropriately measured in individuals at intermediate risk for cardiovascular disease
- Patients with early atherosclerosis or strong family history of early atherosclerosis without explanation by traditional risk factors should also be considered for testing
- Follow-up evaluation of patients with elevations in Lp(a) mass

Methods:

Lipoprotein (a) Cholesterol: Electrophoresis/Enzyme Staining/Densitometry

Low-Density Lipoprotein Cholesterol: Ultracentrifugation/Selective Precipitation/Enzymatic Colorimetric (Beta-Quantification)

Reference Values:

Lipoprotein (a) CHOLESTEROL: Normal: <5 mg/dL

Lipoprotein-X: Undetectable

Low-Density Lipoprotein Cholesterol (LDL-C):

The National Lipid Association and the National Cholesterol Education Program (NCEP) have set the following guidelines for LDL-C in adults (ages 18 years and up):

Desirable: <100 mg/dL

Above desirable: 100-129 mg/dL

Borderline high: 130-159 mg/dL

High: 160-189 mg/dL

Very high: > or =190 mg/dL

The Expert Panel on Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents has set the following guidelines for LDL-C in children and adolescents (ages 2-17 years):

Acceptable: <110 mg/dL

Borderline high: 110-129 mg/dL

High: > or =130 mg/dL

Specimen Requirements:

Patient Preparation:	1. Fasting: 8 hours 2. Patient must abstain from alcohol for 24 hours before collection.
Preferred:	Serum gel
Acceptable:	Red top
Submission Container/Tube:	Plastic vial
Specimen Volume:	4 mL
Collection Instructions:	Centrifuge and aliquot serum into plastic vial. Send refrigerated.
Minimum Volume:	2 mL

Specimen Stability Information:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	60 days

Cautions:

Lipoprotein (a) (Lp[a]) cholesterol values should not be confused with Lp(a) mass values, although they may be correlated in some individual cases. Lp(a) cholesterol values will be approximately 10 times lower than Lp(a) mass values, but the difference between the measures is not uniform. Lp(a) mass values are considered elevated when greater than 30 mg/dL. Lp(a) cholesterol is increased if greater or equal to 5 mg/dL.

Intravenous administration of heparin causes activation of lipoprotein lipase, which tends to increase the relative migration rate of the fractions, especially beta lipoproteins.

CPT Code:

83700

83701

Day(s) Setup: Monday through Friday **Analytic Time:** 3 days

Questions

Contact Tyler Marx, Laboratory Technologist Resource Coordinator at 800-533-1710.