



Laboratory Investigation Report

Ms. AIZAH ALI MOHAMMAD SHAHID ALI Name

DOB 27/10/2017

Age / Gender 6 Y 8 M / Female Referred by **OUT PATIENT**

CITICARE MEDICAL CENTER Centre

Ref No. 43595

Sample No. 2407449696

Collected 17/07/2024 09:30 Registered 17/07/2024 13:27

18/07/2024 10:16 Reported

BIOCHEMISTRY

Flag Unit Result **Reference Range** Test Methodology

APOLIPOPROTEIN A1^ 108 - 225 147 mg/dL

Immunoturbidimetric assay Please note change in

reference range and method.

Source: Roche IFU.

INTERPRETATION NOTES:

Apolipoproteins are the protein constituents of the lipoproteins. The lipoproteins are classified according to their ultracentrifugal flotation density. Apolipoprotein A-1 is the major protein constituent of high-density

lipoproteins (HDL). HDL are synthesized by the intestines and the liver. They transport excess cellular cholesterol from extrahepatic tissue and peripheral cells to the liver. Additionally, apolipoprotein A-1 activates the enzyme lecithin-cholesterol-acyltransferase (LCAT), which catalyzes the esterification of cholesterol, thereby enhancing the lipid-carrying capacity of the lipoproteins.

Apolipoprotein A-1 levels increase in liver disease, pregnancy and as a result of estrogen administration (e.g. oral contraceptives). Apolipoprotein A-1 levels decrease in inherited hypo-α-lipoproteinemia (e.g. Tangier disease), cholestasis, sepsis and atherosclerosis. The liver also synthesizes very low density lipoproteins (VLDL) which mainly contain triglycerides and cholesterol. In the presence of lipoprotein lipase the triglycerides are hydrolyzed and LDL-particles with a high proportion of cholesterol are formed. Apolipoprotein B is the main constituent of LDL.

The combined determination of apolipoprotein A-1/apolipoprotein B and the calculation of the apolipoprotein B: apolipoprotein A-1 ratio can reflect a lipid metabolism disorder and the risk of developing atherosclerosis or

coronary heart disease particularly well, thus providing an excellent addition to the classical HDL/LDL-cholesterol determination. A high level of apolipoprotein A-1 (HDL) and a low level of apolipoprotein B (LDL) correlate best with a low risk for these diseases.

APOLIPOPROTEIN B^ 77 mg/dL Immunoturbidimetric assay 60 - 141

> Please note change in reference range and method.

Source: Roche IFU.

INTERPRETATION NOTES:

Apolipoproteins are the protein constituents of the lipoproteins. The lipoproteins are classified according to their ultracentrifugal flotation density. The liver synthesizes very low density lipoproteins (VLDL) which mainly

contain triglycerides and cholesterol. In the presence of lipoprotein lipase, the triglycerides are hydrolyzed and LDL particles with a high proportion of cholesterol are formed. Apolipoprotein B is the major protein constituent of LDL. About one third of the LDL particles provide cholesterol to peripheral cells. The other two thirds are metabolized by the liver. LDL-uptake in all of these tissues occurs via LDL receptors. Apolipoprotein B levels increase in pregnancy, hypercholesterolemia, LDL receptor defects, bile obstruction, type II hyperlipidemia and nephrotic syndrome. Apolipoprotein B levels decrease during liver disease, α - β lipoproteinemia, sepsis and estrogen administration.

The combined determination of apolipoprotein A-I/apolipoprotein B and the calculation of the apolipoprotein B: apolipoprotein A-I ratio can

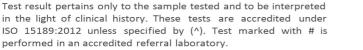
Dr. Vyoma V Shah Dr. Adley Mark Fernandes M.D (Pathology) M.D (Pathology) **Pathologist Clinical Pathologist**

This is an electronically authenticated report

P.O Box: 49527

Page 1 of 2

Printed on: 18/07/2024 10:18



Tel: +971 4 398 8567



BHAVYA THENDANKANDY

Biochemistry Technologist





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APOLIPOPROTEIN B/A1 Ratio

0.5

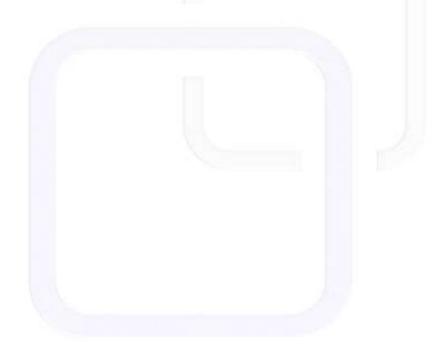
<0.8

Calculation

Source: Mayo Clinic Laboratories

Sample Type: Serum

End of Report



Dr. Adley Mark Fernandes M.D (Pathology) **Pathologist**

M.D (Pathology) **Clinical Pathologist** This is an electronically authenticated report

Dr. Vyoma V Shah

Page 2 of 2

BHAVYA THENDANKANDY Biochemistry Technologist Printed on: 18/07/2024 10:18

Test result pertains only to the sample tested and to be interpreted in the light of clinical history. These tests are accredited under ISO 15189:2012 unless specified by (^). Test marked with # is performed in an accredited referral laboratory.





P.O Box: 49527 Dubai, UAE Tel: +971 4 398 8567 reports@biosytech.ae www.biosytech.com