Nephchem Apolipoprotein A1
(Nephelometry method)

KIT NAME	KIT SIZE	CAT. NO
Nephchem - Apo A1	25 Tests	NAPA01025T

GENUINE BIOSYSTEM

INTRODUCTION

Apolipoprotein A1 (Apo A1) is intended for Invitro quantitative determination of Apo A1 in human serum. Apolipoprotein A1 (APO A1) is the major protein component of high density lipoprotein (HDL). It activates Lecithin cholesterol acyltransferace (LCAT) and removes free cholesterol from extra hepatic tissues. Several studies have shown APO A1 to have an inverse relationship to coronary artery disease and a direct relationship with APO B. APO A1 and APO B levels are useful in assessment of cardiovascular risk in addition to HDL and LDL cholesterol levels.

METHOD PRINCIPLE

The kit utilizes latex-enhanced immunoturbidimetry to measure the Apo A1 level in human serum by GB NEPHCHEM (Nephelometry method). The Kit utilizes immunoturbidimetry to measure the APO A1 level in human serum. During the test, APO A1 in the sample binds with the specific anti-APO A1 antibody to cause agglutination. The turbidity caused by agglutination is detected optically by GB NEPHCHEM, analyzer. The change in absorbance is proportional to the level of APO A1 in the sample. The actual concentration is obtained by comparing with a calibration curve with known concentrations.

KIT CONTENTS

Reagent kit - box	
R1 - Apo A1 buffer	1 x 4.9 ml
R2 - Apo A1 antibody	1 x 1.6 ml
Test Card	1 no
Accessories kit box	
Cuvettes	25 nos
Big tips	25 nos
small tips	50 nos

Working reagent preparation and stability
Reagent R1 and R2 are ready to use liquid stable at 2-8°C till the expiry date printed on the package.

Concentrations in the test
R1 - Glycine buffer solution. Sodium azide < 0.1%
R2 - anti-APO A1 antibodies, glycine buffer, sodium azide < 0.1%

Warnings and notes

1. The Kit is for *in vitro* diagnostic use only. Not for use in humans or animals.
2. The instructions must be followed to obtain accurate results.
3. Do not use the reagents beyond the expiration date.
4. Treat all specimens as infectious. Proper handling and disposal procedures of specimens and test materials should be strictly followed.
5. Samples containing levels of APO A above the assay range should be diluted with saline and retested.
6. Reagents contain less than 0.1% sodium azide as preservative; avoid contact with skin and eyes, flush with copious amounts of water when disposing.

SPECIMEN

Follow standard laboratory procedures to collect serum samples. It is recommended to perform test immediately after sample collection. If the test cannot be done immediately, store sample at 2-4° C for up to 3 days or at -20° C for up to 6 months. Avoid repeated freezing and thawing.

PROCEDURE

It is very important for antigen-antibody reaction needs the pre-warm of both reagents and samples. Along with GB NEPHCHEM equipment, dry bath incubator will be provided, in that dedicated R1, R2 and sample positions were available. Please use the respective positions for desired pre-warm temperature of 37°C

Step 1: Insert Test Card to Card reader slot and display will show promptly add R1 + S (sample)

Step 2: Pipette out 180 µl of R1 into dedicated cuvette and add 5 µl of sample (serum) and place the cuvette in the reading chamber

Step 3: After the incubation, the display will show promptly add R2

Step 4: Pipette out 60 µl of R2 using sensor pipette connected with machine into the cuvette

Step 5: Once the reaction time got over, the result will show in the display and (if external printer connected then it will get print out)

REFERENCE VALUES

100 to 160 mg/dL

It is recommended for each laboratory to establish its own reference ranges for local population.

QUALITY CONTROL

To ensure adequate quality control, each kit can be cross checked with commercially available third party Immunological quality control or use recommended GB Immunology Quality control.

PERFORMANCE CHARACTERISTICS

- **Linearity:** 30 to 240 mg/L
- **Precision:** within Run CV ≤ 4 %
- **Specificity / Interferences**
  No interference detected for bilirubin upto 60 mg/dL and hemoglobin 10 g/L, triglycerides 1000 mg/dL

WASTE MANAGEMENT

Please refer to local legal requirements.

LITERATURE

1. Arvovina SM, Albere JJ, Dati F., et al, International federation of clinical chemistry standardization project for measurements of apolipoprotein A1, Clin Chem, 1991,37:1676.
2. Kottke BA, et al. Mayo Clin. Proc. 1986; 61: 313.
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