TURBICHEM ASO

(Turbilatex method)

KIT NAME	KIT SIZE	CAT. NO
Turbichem - ASO	1x 50 ml	TASO00050M

GENUINE BIOSYSTEM

INTRODUCTION

Anti Streptosylin O (ASO) is intended for Invitro quantitative determination of Anti streptosylin O in human serum. Anti-streptolysin O (ASO) is the antibody produced in response to streptolysin O, an antigen produced by Lancefild group A streptococci. The World Health Organisation recommends the use of ASO to aid the diagnosis of streptococcal infections. ASO titers are elevated in the sera 80 to 85% of patients with rheumatic fever and in 95% of patients with acute glomerulonephritis. Raised ASO levels can also occur in other conditions such as scarlet fever, acute rheumatic arthritis, tonsillitis and various other streptococcal infections.

METHOD PRINCIPLE

The reagent consists of a suspension of latex particles of homogeneous size sensitized with anti-ASO, capable of aggregation in the presence of ASO. This aggregation process produces an increase in the size of the latex particles which in turn produces an increase in the Absorbance of the system.

KIT CONTENTS

R1 - ASO Buffer	1 x 4 0 ml
R2 - ASO Latex	1 x 10 ml
R3 - ASO Calibrator	1 vial

The reagents when stored at 2-8°C are stable up to expiry date printed on the package. The reagents are stable for 10 days on board the analyser at 2-10°C. Protect from light and avoid contamination.

WORKING REAGENT PREPARATION AND STABILITY

Assay can be performed with use of separate R1-ASO and R2-ASO reagents or with use of working reagent. For working reagent preparation mix gently 4 parts of R1-ASO with 1 part of R2-ASO. Avoid foaming.

Stability of working reagent : 7 days at 2-8°C

CONCENTRATIONS IN THE TEST

ASO Latex Reagent : Suspension of Latex particles sensitized with anti-
human ASO, sodium azide 0.9 g/L

ASO Buffer Solution : Phosphate buffer 100 mM, pH 7.2, sodium azide 0.9 g/L

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

ADDITIONAL EQUIPMENT

- Automatic analyzer or photometer able to read at 540 nm
- Thermostat at 37ºC;
- General laboratory equipment;

SPECIMEN

Fresh sera or stored at 2 - 8ºC for no longer than 48 h. It is necessary to freeze the sample when the assay is to be carried out after that period of time. Discard contaminated or hemolyzed sera.

PLOTTING OF MULTIPOINT CURVE

The Turbichem ASO is based on Non-Linear Reactions, hence it is strongly recommended to run Multi-standard mode to plot the Multi-point curve to have better accuracy and precise result.

Serial Dilution Step

	1st	2nd	3rd	4th	5th
Calibrator	100 µl	50 µl from 1st Tube	50 µl from 2nd Tube	50 µl from 3rd Tube	50 µl from 4th Tube
Normal Saline	0	50 µl	50 µl	50 µl	50 µl
Ratio of Dillution	Neat	1/2	1/4	1/8	1/16

PROCEDURE

These reagents may be used both for manual assay (Sample Start and Reagent Start method) and in several automatic analyzers. Applications for them are available on request.

Wavelength	540 nm
Temperature	37°C
Cuvette	1 cm

Pipette into the cuvette:

Reagent	Calibrator (C)	Test (T)
R1 ASO	1000 µl	1000 µl
Bring upto the temperature of determination. Then add		
Calibrator	10 µl	-
Sample	-	10 µl

Mix well, after about 10 sec. (37°C) read the absorbance A1 of the test (T) and calibrator (C) against air or water.After exactly 120 secs. (for all temperature) read the absorbance A2 of the test (T) and calibrator (C). Calculate ΔA/min. (A2 - A1) for the test and calibrator.

CALCULATION

ASO concentration = ΔA (T) / ΔA(C) x calibrator concentration

REFERENCE VALUES

upto 200 IU/ml

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

QUALITY CONTROL

To ensure adequate quality control, each run should include assayed normal and abnormal controls. If commercial controls are not available it is recommended that known value samples be aliquoted, frozen and used as controls.

PERFORMANCE CHARACTERISTICS

- **Sensitivity / Limit of Quantitation:** 10 IU/ml
- **Linearity:** up to 800 IU/,l. Samples that give higher concentration should be diluted in saline Nacl 0.9% (1+4) and the final result have to be multiplied by 5
- **Specificity / Interferences**
  No interference was observed by Bilirubin (171 umol/l), Haemoglobin (5 g/L), Triglycerides (2.28 mmol/L), RF (210 UI/ml). Other drugs and substances may interfere in the test (see Literatures)

WASTE MANAGEMENT

Please refer to local legal requirements.

LITERATURE

1) Manual of clinical lab. Inmuno., ED by Rose, N.R., Friedman, H., Fahey, J.L.,3a ed. 336-339.
2) Wannamaker, L.W., Ayoub, E.M.(1960). Circulation, 21, 614.
3) Klein, G.C., Baker, C.N., Jones, W.C. (1971). Appl. Microbiol. V21 (6), 999-1001.
4) Winkles, J., Lunec, J., Deverill, I. (1987). Clin. Chem. 33 (5), 685 - 689. 5)Winkles, J.W., Lunec, J., Gray, L. (1989). Clin. Chem.35(2), 303-307.
7) young DS. Effects of drugs on clinical laboratory tests, 5th ed. AACC Press,

SYSTEM PARAMETERS

Method	Fixed Time (2-Point)
Wavelength	540 nm
Zero Setting	Distilled Water
Temperature Setting	37° C
Incubation Temperature	37° C
Incubation Time	----
Delay Time	10 secs
Read Time	120 secs
No. of Reading	2
Interval Time	----
Sample Volume	0.01 ml (10 ul)
Reagent Volume	1.0 ml (1000 ul)
Standard Concentration	Refer Standard vial
Units	IU/ml
Factor	----
Reaction Slope	Increasing
Linearity	800 IU/ml

IVD CE

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