

# Nephchem Anti Streptolysin 'O'

## (Nephelometry method)



KIT NAME	KIT SIZE	CAT. NO
Nephchem - ASO	25 Tests	NASO01025T

### INTRODUCTION

Anti Streptolysin O (ASO) is intended for Invitro quantitative determination of Anti streptolysin O in human serum. Anti-streptolysin O (ASO) is the antibody produced in response to streptolysin O, an antigen produced by Lancefield 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 kit utilizes latex-enhanced immunoturbidimetry to measure the ASO level in human serum by GB NEPHCHEM (Nephelometry method) During the test, ASO in the sample binds with the Streptolysin O that is coated on latex particles 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 ASO in the sample. The actual concentration is obtained by comparing with a calibration curve with known concentrations.

### KIT CONTENTS

Reagent kit - box	
R1 - ASO Buffer	1x 6.5 ml
R2 - ASO Latex	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 - Buffer solution, sodium azide < 0.1%

R2 - latex particles coated with anti-ASO, sodium azide < 0.1%

### Warnings and notes

- The Kit is for *in vitro* diagnostic use only. Not for use in humans or animals.
- The instructions must be followed to obtain accurate results.
- Do not use the reagents beyond the expiration date.
- Treat all specimens as infectious. Proper handling and disposal procedures of specimens and test materials should be strictly followed.
- 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 1 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 240 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 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

upto 200.0 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 kit can be cross checked with commercially available third party Immunological quality control or use recommended GB Immunology Quality control.

### PERFORMANCE CHARACTERISTICS

- Linearity:** 20.0 to 800 IU/ml
- Precision:** within Run CV ≤ 6 %
- Specificity / Interferences**  
No interference detected for bilirubin upto 60 mg/dl,  
hemoglobin upto 1000mg/dl, triglycerides 1000 mg/dl

### WASTE MANAGEMENT

Please refer to local legal requirements.

### LITERATURE

- Ayoub, EM, Harden E. Immune response to streptococcal antigens: diagnostics methods. Manual of Clinical Laboratory Immunology, 6th ed. Rose NR, et al, eds.; 2002.
- Cunningham, MW. Pathogenesis of Group A Streptococcal Infections, Clin. Microbiol. Rev. 13, 470-511; 2000.
- Jacobs, DS, et al. Laboratory Test Handbook, 3rd Edition, Lexi-Comp, Hudson (Cleveland); 1994.
- Kaplan, EL, Rothermel, CD, Johnson, DR. Antistreptolysin O and Anti-Deoxyribonuclease B titers: Normal values for children ages 2 to 12 in the United States. Pediatrics; 101: 86-88, 1998.
- Klein GC, Baker, CN, Jones, WL. Upper limits of normal Anti-Streptolysin O and Antideoxyribonuclease B tiers. Applied Microbiology, 1971; 21: 999-1001; 1971.
- Krmakar, MG, Venugopal, V, Joshi, L., Kamboj, R. Evaluation & revaluation of upper limits of normal values of antistreptolysin O & anti-deoxyribonuclease B in Mumbai. Indian J Med Res; 119 (Suppl): 26-28, 2004.



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