# ASO (ANTI-STRIPTOLYSIN-O)





#### **PRINCIPLE**

The AS0 latex reagent consists of Latex particles coated with Streptolysin-O. When specimen containing AS0 is mixed with latex reagent, agglutination is observed which confirms positive test result No agglutination indicated Negative test result and absence of ASO in the specimen.

#### **CLINICAL SIGNIFICANCE**

Streptococci infected individuals produce specific Antibodies "Antistreptolysin-O" (ASO) against antigen such as Streptolysin-O . Streptolysin-S. These antigen are produced as Exotoxins by the group Betahemolytic Streptococci. Streptococcal infection results in increased ASO levels, so ASO titre serve as important factor in detection of Streptococcal Infection. The elvated A80 titre also seen in case of Glomerulonheitis and acute Rheumatic level. Acute Streptococal infection is confirmed if ASO titre is more than 200 IUIml

#### SAMPLE COLLECTION & STORAGE

- ✓ Fresh clear serum is preferred
- ✓ Store at 2-8°C temperature.
- ✓ Do not use Plasma/Hemolysed/Lipemic samples

#### **PRECAUTIONS**

- \* Bring aN reagents to room temperature before use & Shake well the Latex reagent before use
- \* Do not freeze the Latex reagent or expose to extreme temperature
- \* Improper mixing of the reagent with sample leads to erroneous results
- Use of Positive and Negative controls provided enables greater proficiency of the results
- \* Latex reagent should be completely released from the dropper before capping to avoid drying and formation of flakes upon storage at 2-8°C

\* Do not read the results after 2 minutes

#### KIT CONTENTS & STORAGE

ASO Latex Reagent	1 Vial	2 Vials
Positive Control	1 Vial	1 Vial
Negative Control	1 vial	1 Vial
Glass Slide	1 No	1 No
Sample dropper with teat	25 Nos	100 nos
Mixing Sticks	25 Nos	100 nos

All reagents are to be stored at 2-8°C and stable till expiry date mentioned.

## REAGENT PREPARATION

All reagents are ready to use

#### **PROCEDURE**

#### A) Qualitative Method

- Place one drop of Serum, Positive, Negative Controls in separate test circle of me glass slide.
- 2. After swirling the ASO Latex antigen suspension, place one drop in each circle
- Mix well with the disposable mixing sticks provided
- 4. Rock the slide gently for 2 minutes and observe for agglutination and read results

#### RESULTS

No Aggulation : **NEGATIVE**Aggulation within 2 minutes : **POSITIVE** 

## B) Semi quantitative Method

- Dilute the specimen serially 1:2, 1:4, 1:8,
  1:16 using normal saline
- 2. Place one drop of each diluted Serum in separate test circle of the glass slide
- 3. After swirling the Latex antigen suspension, place one drop in 830" circle
- 4. Mix well with the disposable Mixing stick provided
- 5. Rock the slide gently for 2 minutes and observe for agglutination

### RESULTS

Agglutination in the highest specimen dilution within 2 minutes corresponds to ASO titre in the specimen.

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The concentration at A80 can be doubted as follows:

# AS0 in IU/ml DxS

D = Highest dilution showing dear cut agglutination

S= Sensitivity of the test: 200 IU/ml

## **LIMITATIONS**

As with all diagnostic tests, the final diagnosis should be based on correlation of test result with other clinical symptoms & findings. Controls should be handled with proper care though the scum8 material used in the manufacture of Positive 8. Negative controls is tested for HBsAg & HIV antibodies and is found to be Negative

# Bibliography:

- 1. Kilen, 6.0 (1976:Mannual of Clinical Immunology ASM, 264
- Rantz, L.D., Di. Caprio, J.M. Randall, E., (1 952); Am. J. Med. Sci 24