

Qualitative determination of anti-streptolysin O (ASO) in Serum
(For In vitro Diagnostic Use Only)

ORDER INFORMATION

REF	CONT.
ASO 25	25 TESTS
ASO 50	50 TESTS
ASO 100	100 TESTS

CLINICAL SIGNIFICANCE

Streptolysin O is a toxic immunogenic exoenzyme produced by - hemolytic Streptococci of groups A, C and G. Measuring the ASO antibodies are useful for the diagnostic of rheumatoid fever, acute glomerulonephritis and streptococcal infections. Rheumatic fever is an inflammatory disease affecting connective tissue from several parts of human body as skin, heart, joints, etc... and acute glomerulonephritis is a renal infection that affects mainly to renal glomerulus.

PRINCIPLE

The ASO-latex is a slide agglutination test for the qualitative and semi-quantitative detection of anti-streptolysin O (ASO) antibodies. Latex particles coated with streptolysin O are agglutinated when mixed with samples containing ASO.

TEST SENSITIVITY

The sensitivity is of 200 IU/ml of anti-streptolysin O (ASO) according to the World Health Organization (WHO) International Reference preparation.

REAGENT COMPOSITION

Reagent 1 :	ASO Latex Reagent
Reagent 2 :	Positive Control Sera
Reagent 3 :	Negative Control Sera

ACCESSORIES

Slides, Stirrer rods, Sample Droppers

SAFETY PRECAUTIONS AND WARNINGS

The reagents contain sodium azide (0.95 g/l) as preservative. Do not swallow Avoid contact with skin and mucous membranes. Take the necessary precautions for the use of laboratory reagents.

SAMPLE COLLECTION AND PRESERVATION

Fresh serum. Stable 7 days at 2-8°C or 3 months at -20°C. Samples with presence of fibrin should be centrifuged before testing. Do not use highly hemolyzed or lipemic samples.

REAGENT PREPARATION AND STORAGE

All the kit components are ready to use, and will remain stable until the expiration date printed on the label, when stored tightly closed at 2-8°C and contaminations are prevented during their use. Do not freeze: frozen reagents could change the functionality of the test.

Reagents deterioration: Presence of particles and turbidity.

ASSAY PROCEDURE

QUALITATIVE DETERMINATION	
Add in different circles of the slide :	
Serum to be tested	1 drop
Positive Control	1 drop
Negative Control	1 drop
In all circles add :	
ASO latex reagent	1 drop

Mix and spread with the stirring rod to fill the test circle. Rotate the slide and observe for any agglutination which should occur within two minutes.

INTERPRETATION OF THE RESULTS

Marked agglutination indicates an ASO concentration above 200 IU/ml. All the positive samples should be tested by a semi quantitative method.

SEMI-QUANTITATIVE DETERMINATION

Prepare sample dilutions with saline 1:2, 1:4, 1:8, 1:16 etc. Test each dilution according to the qualitative procedure until no further agglutination is observed. The ASO concentration can then be estimated from the last dilution with the visible agglutination.

CALCULATION

The approximate ASO concentration in the patient sample is calculated as follows:

$$200 \times \text{ASO Titer} = \text{IU/MI}$$

QUALITY CONTROL

Positive and Negative controls are recommended to monitor the performance of test procedure, as well as a comparative pattern for a better results interpretation.

REFERENCE INTERVAL

Up to 200 IU/mL(adults) and 100 IU/mL (children < 5 years old)m 6. Each laboratory should establish its own reference range.

BIBLIOGRAPHY

1. Haffejee . Quarterly Journal of Medicine 1992. New series 84; 305: 641-658.
2. Ahmed Samir et al. Pediatric Annals 1992; 21 : 835-842.
3. Spaun J et al. Bull Wild Hlth Org 1961; 24: 271-279.
4. The association of Clinical Pathologists 1961. Broadsheet 34.
5. Picard B et al. La Presse Medicale 1983; 23: 2-6.
6. Klein GC. Applied Microbiology 1971; 21: 999-1001.
7. Young DS. Effects of drugs on clinical laboratory test, 4th ed. AACC Press, 1995.