



**Reagent kit for quantitative estimation of Post Streptococcal Diseases (ASO) in Serum.**

**DIAGNOSTIC SIGNIFICANCE:**

ASO is a group of specific antibodies developed against and exoenzyme produced by  $\beta$ -hemolytic Streptococci of groups A, C and G. Measuring the ASO antibodies are useful for the diagnostic of rheumatoid fever, acute glomerulonephritis, bacterial endocarditis 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 latex particles coated with streptolysin O (SLO) are agglutinated when they react with samples that contain specific antibodies anti-streptolysin O (ASO). The latex particles agglutination is proportional to the concentration of the ASO in the sample and can be measured by turbidimetry.

**SPECIMEN COLLECTION:**

Fresh serum. Stable for 7 days at 2-8°C or 3 months at – 20°C. Samples with presence of fibrin should be centrifuged before testing. Hemolyzed or contaminated samples are not suitable for testing.

**KIT PRESENTATION:**

Pack Size	1 X 25 ml	1 X 50 ml
R1 - ASO (Buffer Reagent)	1 X 20 ml	1 X 40 ml
R2 - ASO (Latex Reagent)	1 X 05 ml	1 X 10 ml
ASO Calibrator	1 Vial	1 Vial

**WORKING REAGENT PREPARATION:**

R1 – ASO (Buffer Reagent) & R2 – ASO (Latex Reagent) are Ready To Use.

**REAGENT STORAGE AND STABILITY:**

All reagents are stable at 2-8°C until the expiry date stated on the label.

**ASSAY PARAMETERS:**

Reaction	: Fix Time	Sample Volume	: 10 $\mu$ l
Wavelength	: 578 nm	R1 + R2 Volume	: 800 $\mu$ l + 200 $\mu$ l
Flow Cell Temp.	: 37°C	Calibrator Conc.	: As On Vial
Initial Delay	: 5 Sec	Reaction Slope	: Increasing
Interval Time	: 120 Sec	Zero Setting	: Dist. Water
Read Time	: 120 Sec	Linearity	: 800
No. of Reading	: 01	Unit	: IU/ml

**PROCEDURE:**

Pipette into TT	Calibrator	Test
R1 - ASO (Buffer Reagent)	800 $\mu$ l	800 $\mu$ l
ASO Calibrator	10 $\mu$ l	--
Sample (Test)	--	10 $\mu$ l
R2 - ASO (Latex Reagent)	200 $\mu$ l	200 $\mu$ l

Mix & aspirate immediately and read difference in absorbance between 5 seconds (AT<sub>1</sub>) and 120 seconds (AT<sub>2</sub>) for Calibrator and Test at 578 nm.

**CALCULATION:**

$$\text{ASO (IU/ml)} = \frac{\Delta\text{Abs of Test} \times \text{Calibrator Conc.}}{\Delta\text{Abs of Calibrator}}$$

Where  $\Delta\text{Abs} = (\text{AT}_1) - (\text{AT}_2)$

**NORMAL VALUES:**

Adults: Up to 200 IU/ml  
Children (< 2 years): Up to 150 IU/ml  
Children (school age): Up to 250 IU/ml  
Each laboratory should establish its own reference range.

**LINEARITY:**

This method is linear up to **800 IU/ml**. For values above 800 IU/ml, dilute the sample suitably with 0.9 % saline, and repeat the assay. Apply correction due to dilution to arrive at a final result.

**Detection limit:** Values less than 12 IU/ml give non reproducible results.

**Analytical sensitivity:** 0.8 mA /IU ASO/ml.

**Prozone effect:** Up to 4000 IU/ml.

**INTERFERENCES:**

Bilirubin (40 mg/dL), Hemoglobin (40 g/L) and Lipemia (10 g/L) and Rheumatoid Factor (800 IU/ml) do not interfere. Other substances may interfere.

**REFERENCES:**

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Expiry Date



In-Vitro Diagnostics Use



Storage



Mfg. Date



Batch Number



Catalogue Number



See Package Insert