ASO

Latex turbidimetry

Product information

24ASO01-UN	**Meditest ASO**	**4x24 mL 2x12 mL**
24ASO01-AU	**Meditest ASO**	**4x24 mL 2x12 mL**
24ASO01-AB	**Meditest ASO**	**4x24 mL 2x12 mL**
24ASO01-ER	**Meditest ASO**	**4x24 mL 2x12 mL**
24ASO01-AR	**Meditest ASO**	**4x24 mL 2x12 mL**

Purpose

In vitro assay for the quantitative immunological determination of antistreptolysin O in human serum and plasma.

Summary

Anti-streptolysin O are specific antibodies against streptolysin O, an extracellular enzyme produced by Lancefield group A, β-hemolytic streptococci (Streptococcus pyogenes). Antibodies to streptolysin O can be detected a week to a month after the onset of streptococcal infection. Streptococcus pyogenes causes a wide range of upper respiratory tract infections, such as acute pharyngitis. Other symptoms of Streptococcus pyogenes infection include glomerulonephritis, rheumatic fever, bacterial endocarditis, and scarlet fever.

Test principle

Serum anti-streptolysin O (ASO) causes agglutination of latex particles coated with streptolysin O. The agglutination of latex particles is proportional to the concentration of streptolysin O and can be measured by turbidimetry.

Reagents - working solutions

R 1 Diluent	Tris buffer Sodium chloride Sodium azide pH 8.2	20 mmol/L 150 mmol/L 0.95 g/L
R 2 Latex	Suspension of latex particles coated with streptolysin O Sodium azide	0.95 g/L

Precautions warnings

It is intended for in vitro diagnostic use by healthcare professionals. Follow the normal precautions necessary in handling all laboratory reagents.
Infectious or microbial waste:
Warning: handle waste as potentially biohazardous. Dispose of waste according to accepted laboratory instructions and procedures.
Environmental hazards: Follow all relevant local disposal regulations to determine that it has been disposed of safely. If requested, a safety data sheet can be provided to professional users.

Inhibit foam formation in all reagents and sample types (sample, calibrator and control).

If there is any damage on the
package, do not use it Read the user manual carefully before use, do not use the expired assay kit Do not mix different lot reagents.

All samples should be considered epidemic material, please dispose of them in accordance with the laboratory working standard of infectious diseases.
Take the necessary protective measures to prevent users from becoming infected during operation.

Use of reagents

Ready to use.

Storage and stability

All components of the kit are stable until the expiration date on the label when stored tightly closed at 2-8ºC, protected from light and contamination is avoided during their use.
Do not use reagents after the expiration date. Signs of reactive deterioration: Presence of particles and turbidity.

Sample collection and preparation

Serum collected by standard procedures. The anti-streptolysin O in serum is stable for 7 days at 2-8ºC.

Required Materials (not included in the kit)

1. Cat# 24ASO01-DC Meditest Diachem ASO Calibrator
2. Cat# 24PRO01-DQ Meditest Diacheck Protein Control L1
3. Cat# 24PRO01-DQ Meditest Diacheck Protein Control L2
4. General laboratory equipment
5. Distilled or deionized water

Working Procedure

If you are using a spectrophotometer to perform this test, work with the following procedure. Ask your representative for the application data for fully automatic devices.

1.Test Conditions:
Wavelength: . 540 nm
Cuvette: . . . . . 1 cm light path
Temperature: .
2.Set the appliance to zero with distilled water.
3.Place the pipettes in a cuvette.

R (mL)	1.0
Sample (µL)	10

4. Mix and read the absorbent immediately (A1) and 2 minutes after sample addition (A2)

Calculation

$$\frac{(A2\text{-}A1)\ \text{sample}}{(A2\text{-}A1)\ \text{sample}} \times \text{calibrator concentration} = \text{IU/mL}$$

Expected values

Adults: < 200 IU/mL
Children: < 150 IU/mL

It is recommended that each laboratory establish its own normal range. The reference range was validated using the CLSI EP28-A3c protocol.

Limitations
Hemoglobin (10 g/L), bilirubin (20 mg/dL), lipemia (triglyceride 10 g/L) and rheumatoid factors (2200 IU/mL) do not mix. Other drugs and substances may interfere.

Performance characteristics
Measuring range 3-800 IU/mL

Precision

	Intra-assay			Inter-assay		
	Mean (%)	%CV	N	Mean (%)	%CV	n
Low	200	3.4	20	200	3.6	20
High	366	3.6	20	366	3.4	20

The results of the performance characteristics depend on the analyzer used.

References

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3. M, Fasani et al. Eur J Lab Med 1994; vol2.nº1: 67.
4. Todd E W. J Exp Med 1932; 55: 267 - 280.
5. Klein, GC. Applied Microbiology 1970; 19:60-61.
6. Klein GC. Applied Microbiology 1971; 21: 999-1001.
7. Young DS. Effects of drugs on clinical laboratory test, 4th ed. AACC Press, 1995

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