**ANTI-O-STREPTOLYSIN (ASO-ASL)**

**Qualitative and semiquantitative determination of anti-o-streptolysin by agglutination to latex**

### TEST SUMMARY

Anti-O-Streptolysin antibodies contained in the serum, produce agglutination of latex particles coated with O-Streptolysin.

### SAMPLES

Fresh serum. Stability 7 days at 2-8°C. For longer periods of time it is recommended to freeze samples at -20°C. Frozen samples must be totally unfrozen and brought to room temperature before using. Samples in which turbidity is observed must be cleared by centrifugation before being analysed.

### REAGENTS

**Latex**
- Latex particles coated with O-Streptolysin; conservative and stabilizer.
  - Positive control
  - Negative control

**Physiological solution**
- COD: AK00310 Slide and disposable stirrers.

### PRECAUTIONS

Reagents may contain not reactive and conservative components. It is opportune to avoid contacts with the skin and do not swallow.

Perform the test according to the general “Good Laboratory Practice” (GLP) guidelines.

### QUALITATIVE PROCEDURE

**Reagents**
- Physiological solution
- COD: AK00310 Slide and disposable stirrers.

**Sample**
- Mix using disposable stirrers and spreading homogeneously the mixture on the slide, then, shake slide for 2 minutes by a sweet rotating motion or by a stirrer at 100 r.p.m., and observe eventual agglutination using artificial light.

**RESULTS INTERPRETATION**

**Positive and Negative control sera should be always used to distinguish an eventual background’s agglutination of reactive.**

### SEMIQUANTITATIVE PROCEDURE

Prearrange serial dilution of the serum, pipetting in five slide areas, 50 µl of physiological solution and 50 µl of sample in the first area. Using the pipette (inspiring and discharging many times) mix carefully contents of first area and transfer 50 µl in the following area etc. Discharge 50 µl from last area. Dispense latex suspension, shake, and after 2 minutes observe agglutination. The titre is given by last clear agglutination.

### EXPECTED VALUES

95% of healthy adults have ASO titres of 200 IU/ml or less, the highest titres are found in school children with titres up to 250 IU/ml. Since a single ASO determination does not provide much information unless it is high, titrations at bi-weekly intervals for 4 to 6 weeks of the doubtful cases are advisable to follow the evolution of the disease. The ASO titres resulting from ordinary streptococcal infections and acute rheumatic fever differ in that the titre of the alter condition is usually much higher and persists for a longer period of time.

### CLINICAL SIGNIFICANCE

Elevated ASO serum titres occur in response to infection with hemolytic streptococci of group A, C and G, producers of streptolysin O, an extracellular protein of enzymatic character with strong antigenic properties. Immunochemical assay of these specific antibodies to streptococcal metabolites provide valuable information to establish a diagnosis of streptococcal infections (acute rheumatic fever, glomerulonephritis).

**NOTE**
- If reaction’s times are bigger than 2 minutes, they may cause a supervaluation of samples concentrations.
- Human sera used in controls have been found negative in the reaction with HIV and HBsAg. However, they should be handled with care.
- If the results are incompatible with clinical presentation, they have to be evaluated within a total clinical study.

### CALIBRATION

Positive and Negative control sera should be always used to distinguish an eventual background’s agglutination of reactive.

### TEST PERFORMANCE

**Sensitivity**
- Test gives positive results as from concentrations of 200 Ul/ml.
- Not happened phenomenon of prozone in ASO concentrations studied until 1500 Ul/ml.

**Specificity**
- A comparison with an available commercial method gave following results on 118 samples compared, giving a specificity = 96%.

### MANUFACTURER

Meridian Healthcare srl
Tel. +39 095 725 68 69 Fax.: +39 095 725 44 54 info@meridianhealthcare.it www.meridianhealthcare.it

### REFERENCES

the association of Clinical Pathologists 1961. Broadsheet 34.

### PACKAGING

**CODE AK00310** (100 TESTS) Latex 1 x 5 ml
**CODE AK00311** (100 TESTS) Latex 1 x 5 ml
- Positive control 1 x 0.5 ml
- Negative control 1 x 0.5 ml
- Slide black spot 3
- Stirrers 50

**CODE AK00305** (ASO Controls)
- Positive control 1 x 0.5 ml
- Negative control 1 x 0.5 ml

### SYMBOLS

| IVD | Only for IVD use |
| LOT | Lot of manufacturing |
| REF | Code number |
| T | Storage temperature interval |
| Expiration date | Warning, read enclosed documents |
| Read the directions | Bilogical risk |

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