Determination of antibodies associated with Salmonella ParaTyphi CH and CO infections by coloured bacterial suspension in test-tube

TEST SUMMARY
The Antibodies associated with Salmonella ParaTyphi CH and Salmonella ParaTyphi CO infections cause agglutination of inactive bacteria present in suspension. The intravitral colouring permits an easier reading of agglutination formation.

SAMPLES
Serum. Stability 6 days at 4°C.

REAGENTS
Suspension: Coloured intravitral inactive bacterial suspension; conservative and stabilizer.

REAGENTS PREPARATION
Reagents are ready for use.

MATERIAL REQUIRED BUT NOT SUPPLIED

PRECAUTIONS
Reagent 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.

PROCEDURE
In a 8 tubes serie (12 x 100 mm) dilute the serum in the first 7 with physiologic solution as indicated in the following table. Using the same pipette (inspiring and discharging many times) mix carefully content of the second tube and transfer 500 µl in the following tube etc. Discharge 500 µl from last test-tube (tube n°7).

RESULTS INTERPRETATION
Being given the intravitral colouring of suspension, it’s possible to effect a preliminary reading without shaking the tubes:

A coloured bottom with a clear point shape, on the tube bottom, indicates negativity.

An agglutinate that cover all the tube bottom indicates a clear positivity, while a no agglutinate with a bottom in the centre, on the tube bottom, indicate a feeble positivity.

The serum titre is given by a high dilution in which there is a feeble positivity.

Title

<table>
<thead>
<tr>
<th>Tube</th>
<th>Physiologic</th>
<th>Sample</th>
<th>Bacterial suspension</th>
<th>Titre</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>900 µl</td>
<td>100 µl</td>
<td>500 µl</td>
<td>1:20</td>
</tr>
<tr>
<td>2</td>
<td>900 µl</td>
<td>100 µl</td>
<td>500 µl</td>
<td>1:40</td>
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<tr>
<td>3</td>
<td>900 µl</td>
<td>100 µl</td>
<td>500 µl</td>
<td>1:80</td>
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<td>...</td>
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<td>...</td>
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<tr>
<td>7</td>
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</tbody>
</table>

Shake before the 8th tube (suspension control) to characterize the suspension, then shake tubes that contain the sample and value the precipitate’s behaviour as regards that of suspension’s control.

The negativity is given by absence of agglutinates (the same behaviour as regards that suspension’s control), positivity shows, on the contrary, the presence of agglutinates always as bigger as the positivity is greater.

The agglutination of somatic component has an uncother appearance and persists also after the shaking, while the ciliary component has a flaky appearance and tends to dissolve by shaking.

The serum titre is given by a higher dilution in which there is a feeble positivity.

DIAGNOSTIC VALUES
Titres until 1:40 are considered negative; from 1:80 to 1:160 are suspect, and from 1:320 are positive.

It is a distinctive sign for the infection diagnosis the significant increase of titre between examined samples after some days.

NOTES
• If the results are incompatible with clinical presentation, they have to be evaluated within a total clinical study.

CALIBRATION/QUALITY CONTROL
It’s advisable the execution of a quality internal control. In order to do this, are available by request the following control sera.

BS00011 3 x 0.5 ml
Positive Control Salmonella, Brucella, Proteus

TEST PERFORMANCE
Sensitivity
In presence of high antibodies titres, phenomenon of prozone can happen, therefore positivity is absent for low dilutions also being present for higher dilutions.

Specificity
A comparison with an available commercial method gave following results on 50 samples compared, giving a specificity = 100%.

LTA srl

<table>
<thead>
<tr>
<th>COMPETITIONS</th>
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</thead>
<tbody>
<tr>
<td>LTA srl</td>
</tr>
<tr>
<td>POSITIVE CH</td>
</tr>
<tr>
<td>POSITIVE CO</td>
</tr>
<tr>
<td>POSITIVE CH and CO</td>
</tr>
<tr>
<td>NEGATIVE</td>
</tr>
<tr>
<td>TOT.</td>
</tr>
</tbody>
</table>

WASTE DISPOSAL
Product is intended for professional laboratories. Waste products must be handled as per relevant security cards and local regulations.

REFERENCES
Rose N.R., Friedman H. – Manual of clinical Immunology – American Society for Microbiology, II ed.

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SYMBOLS
• IVD Only for IVD use
• LOT Lot of manufacturing
• REF Code number
• F Storage temperature interval
• WARNING Warning, read enclosed documents
• Read the directions
• Biological risk

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