

Salmonella T, A, B, C (*Salmonella typhi*, *S. paratyphi* A, B, and C) Polyvalent agglutinant sera

356-1261

DEFINITION

These sera are obtained from rabbits immunized with selected bacterial suspensions. They are prepared for rapid diagnosis, by agglutination on slides, of the *Salmonella* most frequently isolated from hemoculture.

They are not for use for *Salmonella* isolated from co-proculture.

Their use is also not recommended in veterinary medicine.

Bearing in mind the wide variety of serotypes, complete antigen analysis is indispensable.

These sera contain anti-O and anti-H agglutinins corresponding to *Salmonella typhi*, *Salmonella paratyphi* A, B and C. They are diluted in a proportion permitting agglutinations that are as distinct and as specific as possible. Strains of *S. typhi* in V form (O non-agglutinable, rich in Vi antigen) are often far from mobile on isolation. They are therefore agglutinated very little by the polyvalent T serum, but immediately agglutinated by the Vi serum (granular agglutination).

PRESENTATION**Pack of 5 bottles**

Containing 3 ml of each of the sera

Anti-Y, A, B, C and Vi

code 356-1261

STORAGE

- Ready-to-use: + 2°C to 8°C in a dry place.
- Expiration date and batch number are shown on the package.

METHODOLOGY

It is very important to use glass slides that are absolutely clean.

If several agglutinations are to be performed at the same time, it is preferable to use slides measuring 5 x 15 cm, enabling a large number of sera to be deposited.

Deposit a drop of each of the sera.

Collect a loop of 24-hour culture on an agar medium, preferably close to condensation water (for cultures in tubes). This is because the H antigen diffuses best in the most humid zone.

Place this culture in suspension directly in the drop of serum.

Mix well, then observe with the naked eye, or better still above a concave mirror.

READING AND INTERPRETATION**a) Immediate and total agglutination**

The bacteria very probably belong to the species used in the preparation of the serum.

This is more frequent in the case of *Salmonella* isolated from hemoculture. The biochemical characteristics make it possible to confirm the diagnosis.

b) Delayed granular agglutination of type O

The bacteria possess an O antigen common to the strain used to prepare the serum. The two most frequently-encountered species are:

- *S. Enteritidis* (GAERTNER bacillus) which has the O: 9 antigen in common with *S. typhi*;
- *S. Typhimurium* (Aertrijck bacillus) which has the O: 4 antigen and possibly the O: 5 antigen in common with *Salmonella paratyphi*.

Use of anti-H: G sera (for *S. Enteritidis*) and anti-H: i (for *S. Typhimurium*) make it possible to establish a strong presumptive diagnosis.

c) Partial, fluffy agglutination of type H

A much rarer case. The bacteria possess an H antigen common to the strain to prepare the serum, but the O antigen is different. It is therefore necessary to determine the complete formula by means of saturated sera.

d) Agglutination in the 4 sera

It is probably a rough strain. Observation of agglutination in physiological water permits confirmation.

N.B.: Any strain of *Salmonella* posing particular problems of identification can be sent to:

Centre de Référence des *Salmonella*
Institut Pasteur
25, rue du Docteur-Roux
75015 PARIS - FRANCE

QUALITY CONTROL OF MANUFACTURER

Every product manufactured and marketed by Bio-Rad is subject to a quality-assurance procedure at all stages, from the reception of raw materials to the marketing of the end-product. Each batch of finished product undergoes quality control and is marketed only

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V3 – 11/08/11

if it satisfies the acceptability criteria.

Documentation relative to the production and control of each batch is kept on file.