

FEVER MACRO TESTS

For in vitro diagnostic use only

Bacterial stained suspension for in tube serological grouping of Salmonella, Brucella and Rickettsia

TEST SUMMARY

The bacterial suspension are prepared specifically for the semiquantitation of serum agglutinins developed during some febrile infections such as Brucellosis, Salmonellosis and Rickettsiosis.

The distinction of somatic from flagellar antigens makes the different interpretations of clinical situations easier.

The intravital stain allows to distinguish clearly the agglutination, unreadable otherwise.

SPECIMEN

Serum. Stability 6 days at +4°C and 30 days at -20°C.

PROCEDURE

Bring the reagents and samples at room temperature; mix gently the bacterial suspension.

Place in 8 test tubes according to the scheme:

TUBE	1	2	3	4	5	6	7	8
Saline (ml)	0.9	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Serum (ml)	0.1	---	---	---	---	---	---	---
Diluted Serum (ml)	---	0.5 from 1	0.5 from 2	0.5 from 3	0.5 from 4	0.5 from 5	0.5 from 6 (disc. 0.5)	---
Bacterial Suspension (ml)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Final dilution of Serum	1 : 20	1 : 40	1 : 80	1 : 160	1 : 320	1 : 640	1 : 1280	Neg. Cont.

Incubate at +37°C for 16-18 hours or at +22°C for 2 days.

READING

The originality of method consists in the possibility to read the results without shaking the test tube.

Negativity: a coloured and distinct point may be seen in the bottom of the well, like the one of negative control.

Weak positivity: the point in the bottom of the well is not distinct.

Positivity: in the bottom of the well there are irregular agglutinates and the supernatant is clear.

After examining the pattern of the sediment, shake the tube gently according to the classical procedure. Firstly read the negative control tube 8 in order to compare the pattern of the sample tubes. In the negative reaction no agglutination is present, only a typical swirl may be seen when the tube is flicked. Only in a positive reaction there is an evident agglutination increasing with the positivity.

The titre of the serum is designed as the highest dilution that causes agglutination.

CAUTION

Use fresh saline.

In order to have easier reading of the test, keep the tubes at +4°C for 2 hours after incubation.

As with all diagnostic tests, a definitive clinical diagnosis should not be based on the results of a single test, but should only be made by the physician after all clinical and laboratory findings have been evaluated.

The kit must be used by clinical test trained personnel only.

EXPECTED VALUES

Titers up to 1:40 are negative; from 1:80 to 1:160 are uncertain; higher than 1:320 are positive.

Only the time course of the titer is distinctive for a correct diagnosis.

NOTES

The antibodies appear in the firsts 10 days of illness and reach their higher concentration after 20 days.

After the recovery, the somatic antibodies disappear within 5-6 months, while the ciliar ones disappear in 10-12 months. Obviously, the IgG are the last one to disappear.

O agglutinin produce large floccular aggregates, whereas H agglutinins produce small flaky aggregates which are easily dissolved with agitation.

False negative tests may be given by patients which have been treated with antibiotics.

False negative results due to the prozone may be detected by using a large series of dilutions in the agglutination test (negativity in the first tubes, positivity in the higher dilution tubes).

CONTENTS (120 test tubes with 0.5 ml of suspension; 240 test tubes with 0.25 ml of suspension)

Salmonella typhi H	3x20 ml	Cod. XA100000	Salmonella paratyphi C total	3x20 ml	Cod. XA100650
Salmonella typhi O	3x20 ml	Cod. XA100100	Salmonella typhi murium total	3x20 ml	Cod. XA101200
Salmonella typhi total	3x20 ml	Cod. XA100050	Salmonella enteritidis total	3x20 ml	Cod. XA101250
Salmonella paratyphi AH	3x20 ml	Cod. XA100200	Brucella	3x20 ml	Cod. XA100800
Salmonella paratyphi AO	3x20 ml	Cod. XA100300	Brucella abortus	3x20 ml	Cod. XA100850
Salmonella paratyphi A total	3x20 ml	Cod. XA100250	Brucella melitensis	3x20 ml	Cod. XA100860
Salmonella paratyphi BH	3x20 ml	Cod. XA100400	Brucella suis	3x20 ml	Cod. XA100870
Salmonella paratyphi BO	3x20 ml	Cod. XA100500	Proteus OX 19	3x20 ml	Cod. XA100900
Salmonella paratyphi B total	3x20 ml	Cod. XA100450	Proteus OX 2	3x20 ml	Cod. XA101000
Salmonella paratyphi CH	3x20 ml	Cod. XA100600	Proteus OX K	3x20 ml	Cod. XA101100
Salmonella paratyphi CO	3x20 ml	Cod. XA100700			

REFERENCES

1. Widal F. - Bull. Mem. Soc. Med. Hop. de Paris, 6: 26 (1986)
2. Bergey's Manual of Determinative Bacteriology, 8th Ed., Williams and Wilkins, Co. (1974)

