AGD

SeroPak

STAINED SALMONELLA ANTIGEN

(Widal Slide Method)

Code	AGD-Widal 2AS 125
Pack Size	2+2x5ml

INTENDED USE

This kit is used for detection of specific antibodies produced in response to the stimulation by specific antigen of salmonella.

CLINICAL SIGNIFICANCE

The organism Salmonella typhosa is responsible for causing enteric fever or typhoid fever , which is characterized generally by very high consistent fever, loss of appetite, transitory bacteraemia, round or oval shaped ulcer on smooth peritoneal surface of Peyer's patches and solitary lymphoid follicle of ileum etc. The organism possess 'O' antigen on the cell wall and 'H' antigen on it's flagella, against which the host body produces immuno-specific antibodies, to counteract the effect of corresponding antigens.

PRINCIPLE

The killed bacterial suspension of Salmonella carries specific 'O' and 'H' antigen. This will react with immuno-specific antibodies which may be present in patient serum and agglutinate the antigen to produce agglutination or clumps on the slide.

REAGENT COMPOSITION

Reagent 1 : Stained Salmonella Antigen S.typhi “O”
Reagent 2 : Stained Salmonella Antigen S.typhi “H”
Reagent 3 : Positive Control

SAMPLE MATERIAL

Fresh serum sample is preferred. In case of any delay the sample should be stored at 2-8°C away from direct light. However the test is to be performed within 24 hrs. of collection of sample.

STORAGE AND STABILITY

All reagents are stable till expiry date mentioned on the label when stored at 2 - 8°C away from direct light.

PROCEDURES

A.Rapid slide Test (Widal Screening Test) :

1.Clean the glass slide provided in the kit and wipe .

2.Place one drop of undiluted serum to be tested in first two circles.

3.Add one drop of antigen O, H in circles 1, 2 respectively.

4.Mix the contents of each circle with separate stick and spread to fill the entire circle area.

5.Rock the slide for one minute and observe for agglutination.

6.If agglutination is visible within one minute then proceed for quantitative estimation.

Circle	Serum Vol.	Appr. Antigen Drop		Titre
1	80 µL	1 Drop	Mix and rotate for one minute and observe agglutination.	1:20
2	40 µL	1 Drop		1:40
3	20 µL	1 Drop		1:80
4	10 µL	1 Drop		1:160
5	05 µL	1 Drop		1:320

B. Quantitative Slide Test :

1. Clean the glass slide supplied in the kit and proceed as follows.
2. Repeat the above procedure for visible agglutination.
3. Titre is the highest dilution observed in rapid slide screening test which gives visible agglutination.

INTERPRETATION OF RESULT

A : Rapid slide test :

Granular agglutination in case of 'O' and flocculating agglutination in case of ‘H’ indicates positive reaction.

B : Quantitative slide test :

A diagnostic titre of 1:80 suggests positive reaction.

LIMITATION & PRECAUTION

- Bring all the reagents and samples to room temperature before use.
- Serum should not be inactivated.
- Use clean and dry glassware.
- Include positive and negative control sera (normal saline) for greater proficiency in interpretation of results.
- Shake antigen vial well before use.
- Test serum should be clear.
- Avoid performing the test directly under the fan.
- Before giving the final result, patient history should be taken into consideration.
- In non vaccinated persons the titre as high as 1:80 between 7th or 10th day of fever is of diagnostic value and the same titre increases gradually during subsequent period.
- In vaccinated persons the question of anamnestic response should always be borne in mind and 'H' titre should not be taken into account for the purpose of diagnosis unless there is a rising titre of 'H' in subsequent period.
- Care should be taken to empty the dropper after use in order to avoid the possibilities of false positive results.
- Rapid slide tests or quantitative slide tests are non-specific type of test. The positive result should be further confirmed by tube test and other microbiological investigations.

BIBLIOGRAPHY :

1. Felix A. (1942) Brit Med. Jr. 11,597.
2. Protell R.I. et. al. (1971) Lancet, 11, 330.
3. Medical Bacteriology. N. C. Dey (1970) 259 - 284.

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