

## Asritha - TYDAL - OH (Stained Tydal Antigens for Slide and Tube Test)

### CLINICAL SIGNIFICANCE

Salmonella typhi & Salmonella paratyphi are the causative agents of "Enteric Fever". In enteric fever, once the patient is on medication it becomes difficult to isolate the organisms. In serological tests the antibodies produced as a result of infection are detected by using the killed bacterial antigens. The antibodies from the patient's serum react with the corresponding antigens to cause clumping or agglutination.

### PRINCIPLE

The antibodies present in the serum sample react with the corresponding bacterial antigens to give an agglutination.

### ACCESSORIES

1. Slide : 1 No.

### STORAGE / STABILITY

All the reagents are stable at 2 - 8° C till the expiry date mentioned on the labels.

### SPECIMEN

Fresh Serum

In case of a delay in testing, store at 2 - 8° C.

### PRECAUTIONS :

1. Bring all the reagents and samples to room temperature before use.
2. Shake all the antigens thoroughly before use.
3. Avoid using turbid, contaminated or inactivated serum.

### PROCEDURE

#### 1. Rapid screening Slide Test :

- i. On a Slide with six circles, place 0.05 ml of test serum in each of the first two circles and 0.05 ml each of Positive Control and Normal Saline in each of the last two circles respectively.
- ii. Add one drop each of 'O', 'H' antigens in the first two circles respectively and one drop of any one antigen in the last two circles.

- iii. Mix the contents of each circle separately and spread it in the entire circle.

- iv. Rock the slide gently for One Minute and observe for agglutination.

### INTERPRETATION OF RESULTS :

Agglutination with Positive Control and no agglutination with Normal Saline validates test results. No agglutination **upto one minute** is a negative test, and indicates the absence of Corresponding antibodies.

Agglutination within **one minute** is a positive test, and indicates presence of corresponding antibodies. Then proceed for semi-quantitative slide or tube technique for determination of antibody titre.

**Do not observe result after One minute.**

#### 2. Semiquantitative Slide Test:

- i. Put one drop of normal saline in the first circle and 0.005 ml, 0.01 ml, 0.02 ml, 0.04 ml & 0.08 ml of test serum in the remaining five circles respectively.
- ii. To each of the above circles, add one drop of the appropriate antigen which gives an agglutination in the Screening Slide Test.
- iii. Mix the contents of each circle separately and spread it in the entire circle.
- iv. Rock the slide gently for one minute & observe for agglutination.

### INTERPRETATION OF RESULTS :

The lowest volume of serum which shows clear agglutination indicates the cut off level of the positive test and the corresponding antibody titre as per the tube technique given below :

Serum Volume	Antibody Titre
0.08 ml	1:20
0.04 ml	1:40
0.02 ml	1:80
0.01 ml	1:160
0.005 ml	1:320

### 3. Tube Technique using Slide Antigens :

- Perform the assay for the two antigens or for that which has given a positive result in the Screening Slide Test.
- Take a set of six test tubes (10 x 75 mm) for each antigen. Dilute the serum sample and set up the test as indicated in the table.

TUBE NO.	1	2	3	4	5	6
Dilution	Saline Control	1:20	1:40	1:80	1:160	1:320
Normal Saline	1.0 ml	1.9ml	1.0ml	1.0ml	1.0ml	1.0ml
Test Serum	-	0.1ml	-	-	-	-
Diluted Serum	-	-	1.0ml	1.0ml	1.0ml	1.0ml
Antigen	One drop	One drop	One drop	One drop	One drop	One drop

- Mix well after each addition and incubate at 37° C for 16-20 hours.
- Observe for agglutination. The highest dilution of Serum which shows clear cut agglutination indicates the antibody titre.

#### NOTE :

- Sera from normal individuals may show agglutination upto 1:40 dilution.
- Agglutination titre greater than 1:80, is considered significant and usually suggestive of infection.
- Tydal - OH is only a screening test.

- The correlation of test results with typical clinical signs, symptoms and patient's history should be taken into account before arriving at the final diagnosis.
- As with all diagnostic procedures, the Physician should evaluate data obtained by use of this kit in light of other clinical information.
- For accuracy of results, the procedure has to be followed meticulously.
- Slide Test Method : Additional Material Required Stop watch  
Quantitative method : Timer, Test Tubes, Pipettes (0.1 ml, 1.0 ml) Saline, Incubator ( 37°C).

#### REFERENCES

- Cruickshank, R.(1982) Medical Microbiology, 12<sup>th</sup> Edition, P.402.
- Felix, A. 91942 Brit. Med. J., 11,597.

#### PRESENTATION

PRODUCT CODE	PACK SIZE	A <sub>1</sub> -TYDAL O-ANTIGEN	A <sub>2</sub> -TYDAL H-ANTIGEN	TYDAL POSITIVE CONTROL
ATH 0645	2(5+5ml)	2 x 5 ml	2 x 5 ml	0.5 ml

#### PRODUCT FEATURES AT A GLANCE :

- Rapid Slide & Tube Test.**
- Clear and avid agglutination within One minute.**
- Accessories provided with the Kit.**
- Specially stabilized stained Widal Antigens.**
- Convenient pack size : 2 (5 + 5 ml).**
- Store at 2-8°C.**



**ASRITHA DIATECH INDIA PVT. LTD.**

IN VITRO DIAGNOSTIC REAGENTS

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