

# ***Escherichia coli* K ANTISERA**

## for *in vitro* diagnostic use

### **Application**

The *E. coli* antisera K from Statens Serum Institut are intended for typing of capsule antigens by agglutination.

### **Description**

The *E. coli* antisera are raised in rabbits. The antisera are supplied in 1 mL bottles (sodium azide as preservation).

Cross-reactions have been removed by absorption when necessary.

### **Principle**

When a bacterial culture is mixed with the corresponding specific antiserum directed against the bacterial surface components, the bacteria cells are bound together through antigen-antibody bonds to form aggregates (agglutination).

This is usually visible to the naked eye as clumps in the suspension.

### **Material required but not provided**

Agar medium (e.g. beef extract agar)

Inoculating loop or toothpick

Pipettes

Glass slides

Physiological saline, pH 7.4

An incubator set at 37°C

### **Procedure**

#### **General**

Physiological saline is used as a negative control and must be negative.

If the negative control is positive (agglutinates), the strain is auto agglutinating.

#### **Slide agglutination with F antisera**

1. The *E. coli* is grown over night at 37°C on a suitable agar medium not inhibiting motility.
2. Apply a small drop of antiserum (approximately 20 µl) on a glass slide.
3. Transfer culture from a single colony to each drop of antiserum and mix well. The amount of culture should be sufficient to give a distinct milky turbidity. Use an inoculating loop or a toothpick.
4. Tilt the slide forth and back for no more than **5 - 10 seconds**.

5. The reaction is read with the naked eye by holding the slide in front of a light source against a black background (indirect illumination).
6. A positive reaction is seen as a visible agglutination. A negative reaction is persistence of the homogeneous milky turbidity. A late or weak agglutination should be considered negative.

### **Storage and shelf life**

Store at 2-8°C in a dark place. Expiry date is printed on the package.

Turbidity due to lipoprotein precipitation is sometimes seen after prolonged storage. Precipitation and/or contamination can be removed by centrifugation (10,000g) followed by sterile filtration (0.22 µm).

### **Typing support**

*E. coli* strains which cannot be typed, may be sent to The International Escherichia Centre (WHO), 5 Artillerivej, 2300 Copenhagen S, Denmark for further examination. Please enquire about the charges.



### **Information and ordering:**

Diagnostics Sales and Marketing  
Statens Serum Institut  
Herredsvejen 2  
3400 Hillerød  
Denmark  
Tel: +45 4829 9178  
Fax: +45 4829 9179  
[microbiology@ssi.dk](mailto:microbiology@ssi.dk)  
[www.ssi.dk](http://www.ssi.dk)