

## CM 22349 - RAPID COLIFORM KIT

### INTENDED USE

For rapid detection and confirmation of *Escherichia coli* and other coliforms from water on the basis of enzyme substrate reaction

### PRODUCT SUMMARY AND EXPLANATION

There is a need for rapid methods to quickly determine the indicator bacteria and pathogens in water. Monitoring microbiological quality of drinking water relies on examination for indicator bacteria such as *Escherichia coli* and coliforms by using Rapid coliform broth. Rapid coliform kit is one such kit used for rapid detection of coliforms in water. It is user-friendly and allows low-cost rapid test. It is also suitable for handling by untrained personnel for monitoring of rural drinking water sources.

### KIT CONTAINS

Rapid coliform broth dehydrated powder (1.75g)  
Sterile PET bottle 200ml

### PRINCIPLE

Rapid coliform broth contains all the essential nutrients for the growth of *Escherichia coli* and coliforms along with a chromogenic (X-gal) and a fluorogenic substrate (MUG). Presumptively, presence of *Escherichia coli* and coliforms is indicated by colour change of broth to blue-green from initial yellow colour. Further, *E. coli* is confirmed by detecting fluorescence in the broth on exposure to UV. The non-fluorescent substrate is cleaved by the enzyme produced by *E. coli* to release the fluorogen (4-methylumbelliferone), which exhibits a bluish fluorescence when exposed to UV (366nm). Other Coliforms, on the other hand, will not produce fluorescence.

### INSTRUCTION FOR USE

- Carefully remove the bottle cap and collect 100ml water sample in provided bottle.
- Add Rapid coliform medium into collected water sample.
- Quickly re-cap the test bottle and secure it tightly.
- Shake well to dissolve the medium completely and incubate at 35-37°C for 18 - 24 hours and take observation.

### QUALITY CONTROL SPECIFICATIONS

**Appearance of powder** : Cream to yellow colored, homogeneous powder  
**Appearance of Medium** : Yellow coloured clear solution on addition of water  
**Sterility Test** : Passes release criteria

### INTERPRETATION

Cultural characteristics observed after Incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Colour of the medium	Fluorescence (at 366nm)	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Luxuriant	Bluish green	+ve	35-37°C	18-24 Hours
<i>Salmonella</i> Typhimurium	23564	50-100	Luxuriant	Yellow	-ve	35-37°C	18-24 Hours
<i>Salmonella</i> Typhimurium	13048	50-100	Luxuriant	Yellow	-ve	35-37°C	18-24 Hours
<i>#Klebsiella aerogenes</i>	13048	50-100	Luxuriant	Bluish green	-ve	35-37°C	18-24 Hours



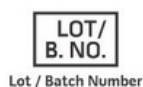
#Formerly known as *Enterobacter aerogenes*

**STORAGE**

Store the dehydrated powder in a dry place, in tightly-sealed containers between 2-8°C and protect from direct sunlight. The powder may be used up to the expiration date and incubated for the recommended incubation times.  
**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, or any other signs of deterioration.

**DISPOSAL**

After use, prepared media, specimen/sample containers and other contaminated materials must be sterilized before discarding as per standard protocol.



**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.  
**\*For LabUse Only**