HiFast™ Coli-nella Water Testing Kit K096

For rapid detection of water pathogens such as *E.coli, Salmonella, Klebsiella, Citrobacter, Vibrio* and *Pseudomonas.*

Kit contents:

1. Differential medium sufficient for 20ml media
2. Pseudomonas identification medium - 5ml quantity
3. Product Insert

Principle:

Water is basic requirement which is contaminated with chemical and microbial pollutants. The test for chemical pollutants is instant but microbial contamination takes a period of 24-48 hours for confirmation. The constant urge to search a rapid method for the detection has led to the development of HiFast Rapid Coli- nella Detection Kit. The major microbial water contaminants are coliforms- *Escherichia coli, Klebsiella pneumoniae, Salmonella, Citrobacter, Vibrio, and Pseudomonas*. So this test was designed for the rapid detection and differentiation of these organisms. Recovery of these pathogens is faster and reliable.

The differential growth medium contains enriched nutritive medium which is a source of nitrogen, vitamins and other growth requirements. Selective compounds present in the medium suppresses the growth of gram positive microorganisms. The chromogenic mix incorporated in the medium is cleaved specifically cleaved by *E.coli* and hence green colour indicates the presence of *E.coli*. The detection of H_2S production is enhanced by the presence of specific H_2S detectors. The medium turns black in case of H2S producers such as *Salmonella, Citrobacter* etc. The presence of a pH indicator helps in the detection and differentiation of lactose fermenters and lactose non-fermenters. Lactose is the fermentable carbohydrate and phenol red is the pH indicator. Lactose fermenting strains ferments lactose and produces acid thereby reducing the pH of the medium which is detected by the pH indicator dye thereby imparting yellow colour to the medium. Lactose non-fermenters do not utilise lactose and hence the colour of the medium remains pink. Pseudomonas enrichment medium is a selective medium which eliminates the accompanying flora and imparts greenish pigment to the broth in presence of *Pseudomonas.* The tubes are incubated further for upto 24 hours before reporting the results as negative.

Directions:

Differential Medium for water testing

1. Fill the bottle with water upto arrow level.
2. Allow the powder medium to dissolve completely by gentle shaking.
3. Incubate at 35-37°C for 4 to 6 hours.
4. Observe for colour change and turbidity of the medium visually.

Pseudomonas identification medium

1. Add the water sample to be tested upto arrow mark.
2. Allow the powder medium to dissolve completely by gentle shaking.
3. Incubate at 35-37°C for 4 to 6 hours.
4. Observe for turbidity and pigment production of the medium visually.
5. Add few drops of some disinfectant (i.e. Dettol, phenyl etc.) and discard the vial. Preferable to use autoclave wherever the facility is available.

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Quality Control:

Appearance:
Part A : Light yellow to pink coloured, homogeneous free flowing powder
Part B : Light yellow to pink coloured, homogeneous free flowing powder

Colour and Clarity:
Part A : Red coloured clear solution obtained on addition of water.
Part B : Colourless clear solution.

Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 4-6 hours.

Part A:

Organisms (ATCC)	Colour change of the medium
Escherichia coli	Green with turbidity
Salmonella species	Black with turbidity
Klebsiella pneumoniae	Yellow with turbidity
Vibrio species	Brownish red with turbidity
Pseudomonas species	Dark red with turbidity

Part B:

Organisms (ATCC)	Colour change of the medium
Escherichia coli	Inhibited
Salmonella species	Inhibited
Klebsiella pneumoniae	Inhibited
Vibrio species	Inhibited
Pseudomonas species	Greenish pigment with turbidity

Storage:
Store below 10-30°C in original packing. Use before expiry period on the label,