

PA Coliform Test Kit

Intended Use

PA Coliform Test Kit is used for the detection of presence or absence of coliform bacteria from water samples.

Summary

The coliform group of bacteria is the principle indicator of suitability of water for domestic, industrial or other uses. Presence-absence procedures can be effectively used to monitor water from treatment plants and distribution systems.

The presence-absence test for the coliform group is a simple modification of the multiple tube procedure. Simplification, by use of one large test portion (100 mL) in a single culture bottle to obtain qualitative information on the presence or absence of coliforms, is justified on the theory that no coliforms should be present in 100 mL of a drinking water sample.

Principle

The medium contains nutrients required for the growth of coliforms. Lactose is the fermentable carbohydrate and energy source for bacterial metabolism. Phosphates provide buffering action while sodium lauryl sulphate inhibits organisms other than coliforms. Bromocresol purple is the pH indicator, which turns yellow at acidic pH.

Reagent

The Micropress® PA Coliform Test Kit is a reagent set for laboratory use only.

The Micropress® PA Coliform Test Kit comprises of:

1. One sterile bottle (100 mL capacity) and
2. Dehydrated medium enough for 100 mL.

Storage and Stability

1. Store in a cool, dry place at 15°C-25°C away from bright light.
2. Stability of the kit is as per the expiry date mentioned on the label.

Directions

1. Collect 100 mL water to be tested in the sterile bottle provided in the kit.
2. Add entire quantity of dehydrated medium and dissolve by swirling.
3. Incubate the bottle for 24-48 hours at 35°C-37°C.
4. Observe for colour change.

Interpretation of Results

If medium changes from purple to yellow, it indicates presence of coliforms.

Quality Control

Appearance: Dark yellow coloured, homogeneous free flowing powder.

Prepared Appearance: Purple coloured, clear solution obtained on addition of 100 mL water.

Cultural Response: Cultural characteristics observed after an incubation of 24-48 hours at 35°C-37°C.

Organism (ATCC)

Escherichia coli (25922)

Klebsiella aerogenes (13048)

Salmonella enterica subsp. *enterica* serovar *Typhimurium* (14028)

Enterococcus faecalis (29212)

Growth

Good

Good

Good

Partial Inhibition

Colour Change

Yellow

Yellow

No change

Slight yellow

Note: Inoculum cfu: 100-1000.

Remarks

1. The Microxpress PA Coliform Test Kit is an *In vitro* diagnostic kit for laboratory and professional use only. Not for medicinal use.
2. Sensitivity of a rapid test may be compromised because the bacterial limit sought may be below the minimum bacterial concentration essential to rapid detection.
3. Presence-absence test is only a presumptive test for coliforms. Confirmation and detection of coliforms may be achieved by use of appropriate confirmation media, incubation time and temperature.
4. Clinical samples and microbial cultures should be considered as pathogenic biohazard and handled accordingly. Good laboratory practices and hazard precautions must be observed at all times.

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Comparison of membrane filter, multiple fermentation tube and presence-absence techniques for detecting total coliforms in small community water systems, Nicholas J; Jacobs *et al.*; Appl. Environ. Microbiol. May 1986, 51 p. 1007- 1012.
2. Clark J. A. 1968, a presence-absence test providing sensitive and inexpensive detection of coliforms, and fecal streptococci in municipal drinking water supplies, Can. J. Microbiol; 14.13-18.
3. Evaluation of commercial presence-absence test for detection of total coliforms, E. coli and other indicator bacteria, James, Clark and Abdul H Shranavi, App. Environ. Microbiol; Feb 1993,59, p-380-388.
4. Standard Methods for the Examination of Water and Wastewater 20th edition, APHA.
5. M. Manafi, New approaches for the fast detection of indicators, in particular enzyme detection methods (EDM).
6. OECD Work shop molecular methods for safe drinking water, 1998.
7. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat. No.	Product Description	Pack Size
204160410001	Ready Prepared Kit	1 Kit (1Test)

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.
