# Milk Agar with Cetrimide (Twin Pack)

## Intended Use
Milk Agar with Cetrimide is used for the detection and enumeration of *Pseudomonas aeruginosa* in swimming pool water.

## Summary
Milk Agar with Cetrimide is formulated as recommended by BIS for detection and enumeration of *Pseudomonas aeruginosa* from water. Strains of *Pseudomonas aeruginosa* are identified by their pigment i.e. pyocyanin production. *Pseudomonas aeruginosa* is the only species of *Pseudomonas* or Gram-negative rod known to excrete pyocyanin. *Pseudomonas aeruginosa* hydrolyzes casein and produces a yellow to green diffusible pigment. Subculture a loopful of culture medium from Asparagine Proline Broth tubes showing either growth or fluorescence on Milk Agar plates and examine for pigment production.

## Principle
Peptic digest of animal tissue, yeast extract and skim milk provide nitrogen, sulphur, vitamins and other growth nutrients. Sodium chloride maintains osmotic equilibrium. Cetrimide (Cetyltrimethylammonium bromide) is a quaternary ammonium compound which inhibits a wide variety of microorganisms including *Pseudomonas* species other than *Pseudomonas aeruginosa*.

## Formula*

| **Ingredients** | **g/L** |
|---|---|
| **Part A** | |
| Skim Milk Powder | 133.33 |
| **Part B** | |
| Peptic Digest of Animal Tissue | 3.33 |
| Sodium Chloride | 1.67 |
| Yeast Extract | 1.0 |
| Cetrimide | 0.4 |
| Agar | 20.0 |
| Final pH (at 25°C) | 7.3 ± 0.2 |

*Adjusted to suit performance parameters.

## Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

## Type of Specimen
Water samples

## Specimen Collection and Handling
Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

## Directions
1. Suspend 26.40 g of the powder of Part B in 250 mL of purified / distilled water.
2. Heat to boiling to dissolve the powder completely.
3. Sterilize by autoclaving at 121°C (15 psi) for 20 minutes as per validated cycle.
4. Suspend 133.33 g of the powder of Part A in 750 mL of purified / distilled water.
5. Sterilize by autoclaving at 121°C (15 psi) for 5 minutes as per validated cycle.
6. After autoclaving cool both the parts to 50°C.
7. Aseptically add Part A solution to Part B solution, mix well and pour into sterile petridishes.

## Quality Control

**Dehydrated Appearance:** Part A: White to cream coloured, homogeneous, free flowing powder.
Part B: Cream to yellow coloured, homogeneous, free flowing powder.
**Prepared Appearance:** Off white coloured, opaque gel forms in petridishes.
**Cultural Response:** Cultural characteristics observed after an incubation at 35°C-37°C for 24-48 hours.

| Organism (ATCC) | Growth | Pigment |
|---|---|---|
| *Escherichia coli* (25922) | Inhibited | - |
| *Pseudomonas aeruginosa* Strain Boston 41501 (27853) | Good | Blue-green |
| *Stenotrophomonas maltophilia* (13637) | Inhibited | - |

## Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

## 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. International Organization for Standardization (ISO), Draft ISO/DIS 83 60-1:1988
2. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.


## Product Presentation:

| Cat No. | Product description | Pack Size |
|---|---|---|
| 201130560500 | Dehydrated Culture Media | 500 g |