

## Cetrimide Agar

Catalog : HB5184-2-500

*Cetrimide Agar is used for the selective isolation and presumptive identification of Pseudomonas aeruginosa.*

### Approximate Formula:

| Ingredients                  | gm/liter |
|------------------------------|----------|
| Pancreatic Digest of Gelatin | 20.0     |
| Magnesium chloride           | 1.4      |
| Potassium sulfate            | 10.0     |
| Cetrimide                    | 0.3      |
| Agar                         | 13.6     |
| Final pH 7.2±0.2 at 25°C     |          |

\*Adjusted and/or supplemented as required to meet performance criteria.

### Directions:

Suspend 45.3g of the medium in one liter of distilled water or deionized water. Add 10ml of glycerol. Mix well and heat with frequent agitation to completely dissolve the powder. Dispense into triangle flasks. Sterilize in an autoclave at 121°C (15 lbs.) for 15 minutes.

### Principle and Interpretation:

Pancreatic digest of gelatin supplies the nutrients necessary to support growth. The production of pyocyanin is stimulated by the magnesium chloride and potassium sulfate in the medium. Cetrimide is a quaternary ammonium, cationic detergent compound, which is inhibitory to a wide variety of bacterial species including *Pseudomonas* species other than *P. aeruginosa*. Agar is a solidifying agent. Cetrimide Agar is supplemented with 1% glycerol as a source of carbon.

### Appearance:

Dehydrated medium is a free-flowing yellowish powder. The prepared medium is a kind of milky-white gel.

### Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

### Storage conditions and Shelf life:

Cetrimide Agar must be stored tightly capped in the original container at 5-30°C. The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8°C.

### Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 30-35°C for 24-48 hours.

| Microorganism                 | Strains Number | Inoculum (CFU)   | Growth    | Recovery | Remarks        |
|-------------------------------|----------------|------------------|-----------|----------|----------------|
| <i>Pseudomonas aeruginosa</i> | ATCC9027       | 20-200           | Luxuriant | ≥70%     | Green colonies |
| <i>Pseudomonas aeruginosa</i> | ATCC 27853     | 20-200           | Luxuriant | ≥70%     | Green colonies |
| <i>Escherichia coli</i>       | ATCC 8739      | >10 <sup>3</sup> | Inhibited | /        | /              |
| <i>Staphylococcus aureus</i>  | ATCC 6538      | >10 <sup>3</sup> | Inhibited | /        | /              |

### References:

- MacFaddin. 1985. Media for isolation-cultivation-identification-maintenance of medical bacteria, vol.1. Williams & Wilkins, Baltimore, Md.
- United States Pharmacopeial Convention, Inc. 2008. The United States pharmacopeia 31/The national formulary 26, Supp. 1, 8-1-08, online. United States Pharmacopeial Convention, Rockville, Md.