

# **Technical Data**

# **Antibiotic Assay Medium H**

M1665

Antibiotic Assay Medium H is used for the microbiological turbidimetric assay of Apramycin using *Salmonella cholerasuis* as a test organism

# Composition\*\*

| Ingredients                | Gms / Litre |
|----------------------------|-------------|
| Casein enzymic hydrolysate | 6.000       |
| Yeast extract              | 2.000       |
| D-Glucose                  | 10.000      |
| Final pH ( at 25°C)        | 8.00±0.2    |

<sup>\*\*</sup>Formula adjusted, standardized to suit performance parameters

#### **Directions**

Suspend 18 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure  $(121^{\circ}C)$  for 15 minutes

# **Principle And Interpretation**

This medium is formulated in accordance with British Pharmacopoeia (1). This medium is employed for turbidimetric assay of Apramycin, an antibiotic of the aminocyclitol group, using Salmonella *cholerasuis*. Turbidimetric methods for determining the potency of antibiotics are inherently more accurate and more precise than comparable agar diffusion procedures

Essential nutrients for growth of test organism is provided by casein enzymic hydrolysate and yeast extract in this medium. D-Glucose is important as source of carbon to the test organism. Turbidimetric antibiotic assay is based on the change or inhibition of growth of a test microorganism in a liquid medium containing a uniform concentration of an antibiotic. Use of this method is appropriate only when test samples are clear.

#### **Quality Control**

### **Appearance**

Cream to yellow homogeneous free flowing powder

#### Colour and Clarity of prepared medium

Light yellow coloured clear to slightly opalescent solution.

#### Reaction

Reaction of 1.8% w/v aqueous solution at 25°C. pH: 8.00±0.2

#### pН

7.80-8.20

#### **Cultural Response**

M1665: Cultural characteristics observed after an incubation at 35-37°C for 12-24 hours.

| Organism                             | Inoculum<br>(CFU) | Growth    | Serial dilution with |
|--------------------------------------|-------------------|-----------|----------------------|
| <b>Cultural Response</b>             |                   |           |                      |
| Salmonella Cholerasuis<br>ATCC 12011 | 50-100            | Luxuriant | Apramycin            |

#### **Storage and Shelf Life**

Store below 30°C in tightly closed container and use freshly prepared medium. Use before expiry date on the label

#### Reference

1. British Pharmacopoeia, 2009, British Pharmacopoeia Commission

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