

## Technical Information

### Antibiotic Assay Medium No. 40

#### Product Code: DM 2143

**Application:** - Antibiotic assay medium No. 40 is used in microbiological assay of Thiostrepton using *Enterococcus faecium* as test organism.

#### Composition\*\*

Ingredients	Gms / Litre
Yeast extract	20.000
Peptic digest of animal tissue (Peptone)	2.500
Dextrose	10.000
Potassium dihydrogen phosphate	2.000
Polysorbate 80	0.100
Casein enzymic hydrolysate	2.500
Agar	10.000
Final pH ( at 25°C)	6.7±0.2

\*\*Formula adjusted, standardized to suit performance parameters

#### Principle & Interpretation

This medium is used to maintain the test organism *Enterococcus hirae* ATCC 10541 being used for assay of Thiostrepton. as recommended by USP <sup>(1)</sup>. Essential amino acids, mineral and growth factors are supplied by peptic digest of animal tissue, casein enzymic hydrolysate and yeast extract in this medium. Dextrose functions as carbon and energy source for enhancing the growth of test organism. During maintenance of the test organisms, good buffering action is provided by phosphates in the medium. Incorporation of polysorbates reduces the surface tension, help in maintaining uniform suspension of cells and also neutralize phenolic compounds if any in the test sample,

#### Methodology

Suspend 47.1 grams of powder media in 1000 ml purified/distilled water. Shake well and heat to dissolve the medium completely.

Dispense and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

## Quality Control

### Physical Appearance

Cream to yellow homogeneous free flowing powder

### Gelling

Firm, comparable with 1.0% Agar gel.

### Colour and Clarity of prepared medium

Light amber coloured clear to slightly opalescent gel forms in Petri plates.

### Reaction

Reaction of 4.71% w/v aqueous solution at 25°C. pH : 6.7±0.2

pH Range:- 6.50-6.90

### Cultural Response/Characteristics

DM2143: Cultural characteristics observed after an incubation at 35 - 37°C for 18 - 24 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Antibiotics assayed
<i>Enterococcus hirae</i> ATCC 10541		luxuriant	>=70%	Thiostrepton

## Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

**Prepared Media:** 2-8<sup>0</sup> in sealable plastic bags for 2-5 days.

## Further Reading

1. United States Pharmacopoeia 2009, US Pharmacopoeial Convention, Inc., Rockville, MD.

## Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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