



## Antibiotic Assay Medium No. 40

M1143

### Intended Use:

Recommended for the microbiological assay of Thiostrepton using *Enterococcus hirae* (*Streptococcus faecalis*) as the test organism.

### Composition\*\*

Ingredients	Gms / Litre
Yeast extract	20.000
Peptone	2.500
Dextrose (Glucose)	10.000
Potassium dihydrogen phosphate	2.000
Polysorbate 80 (Tween 80)	0.100
Tryptone	2.500
Agar	10.000
Final pH ( at 25°C)	6.7±0.2

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

### Directions

Suspend 47.1 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Dispense and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

### Principle And Interpretation

This medium is used as maintenance medium for test organism *Enterococcus hirae* ATCC 10541 used for assay of Thiostrepton. It is recommended by USP (1). Essential amino acids, mineral and growth factors are supplied by Peptone, Tryptone 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 maintained by phosphates in the medium. Incorporation of polysorbates reduces the surface tension, maintaining uniform suspension of cells and also can neutralize phenolic compounds in the test sample, if any.

### Type of specimen

Rjct o cegwkecn"uc o rng

### Specimen Collection and Handling:

Hqt" r jct o cegwkecn"uc o rng" uc o rngu" hqmqy" cr rtrtkcvg" vgejpkswgu" hqt" jcpfnkpi" urgek o gpu" cu" rgt" guvcdnkujgf" i wkfgnkpgu \*5,6+0"Chvgt" wug."eqpvc o kpcvgf" o cvgtknu" o wuv"dg"uvgtknk|gf"d{"cwwqencxkpi"dghqtg"fkuectfkpi0

### Warning and Precautions :

Tgcf" vjg"ncdgn" dghqtg" qrgkpi" vjg" eqpvkpgt0" Ygct" rtqvgevkxg" inqngxulrtqvgevkxg" enqvjkpi|g{g" rtqvgevkqpl" hceg" rtqvgevkqp0" Hqmqy" iqqf" oketqdknqikecn" ncd" rtcevkegu" yjkn" jcpfnkpi" urgek o gpu" cpf" ewnwvtg0" Uvcpfctf" rtgecwwkqpu" cu" rgt" guvcdnkujgf" i wkfgnkpgu" ujqwnf" dg" hqmqygf" yjkn" jcpfnkpi" urgek o gpu0" Uchgv{" i wkfgnkpgu" oc{" dg" tghgtgf" kp" kpfkxkfcwcn" uchgv{"fcvc"ujggvu0

### Limitations :

30 Freshly prepared medium plates must be used"qt"kv" oc{"tguwnv"kp"gttqpqqwu"tguwnvu.

40 Use of this method is appropriate only when test samples are clear.

### Performance and Evaluation

Rgthqt o cpeg"qh"vjg" o gfkwo"ku"gzrgevgf" y jgp" wugf" cu" rgt" vjg" fktgevkqp" qp" vjg"ncdgn" ykvj"kp"vjg" expiry period when stored at recommended temperature.

## Quality Control

### 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

6.50-6.90

### Cultural Response

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 (00011*)		luxuriant	>=70%	Thiostrepton

Mg{"<", Eqttgurqpfkpi"Y FEO"pw o dgtu0

## Uvqtcig"cpf"Ujgnh"Nkhg

Tups f!cfyggp!32/52ÅE!j o!blujhiumz!dmptfe!dpoubjopf\$wug"htgujn{"rtgrctgf"ogfkwo!Vtf!cfgpsf!fyqjsz!ebuf!p o!ui f!mbcQm!!  
 pqf o j oh-!qspevdu!tipvme!cf!qspqfsmz!tupsfelesz-!bgufs!ujhiumz!dbqqj oh!ui f!apudf!jmo dudms tlo en l shnm ctd sn sgd  
 gxf nrbnohb m st d ne sgd o nctbs- Hlo nod rsn fd ne sgd o nctbs l x d c sn tlo en l shnmStore in dry ventilated area  
 protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is  
 best if used within stated expiry period.

## Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (1,2).

## Reference

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

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### Disclaimer :

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