

TM 1112 – TRYPTOSE YEAST EXTRACT BROTH (as per AOAC)

INTENDED USE

For detection of *Clostridium perfringens* with the addition of salicin, raffinose and phenol red.

PRODUCT SUMMARY AND EXPLANATION

Clostridium perfringens produces a heat-resistance enterotoxin which causes food-poisoning if ingested. In perfringens poisoning, the vehicle is almost always an improperly cooked meat. The heat resistance of its spores often allows *C. perfringens* to survive incomplete cooking of food, with the surviving bacteria then able to cause food poisoning. This makes detection and isolation of these organisms from food important. Tryptose Yeast Extract Broth is recommended by AOAC for the confirmation of *C. perfringens* in foods.

COMPOSITION

Ingredients	Gms / Ltr
Tryptose	20.000
Yeast extract	5.000
Sodium chloride	5.000

PRINCIPLE

Tryptose and yeast extract provide necessary nutrients to the organisms. Sodium chloride maintains the osmotic equilibrium. Addition of salicin or raffinose helps in distinguishing clostridia species. Salicin is usually not fermented by *C. perfringens* but is rapidly fermented with production of acid and gas by other species. Acid is usually produced from raffinose by *C. perfringens* but not by other species. Addition of 1-2 drops of 0.04% phenol red to the culture after incubation helps in the detection of acid production (yellow colour).

INSTRUCTION FOR USE

- Dissolve 30 grams in 1000 ml distilled water.
- Heat if necessary, to dissolve the medium completely.
- Dispense in flasks or tubes. Add Salicin (1%) or Raffinose (1%) as desired and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Incubate media for 24 hours at 35°C transfer 1 ml culture to test tube and add 1-2 drops 0.04% phenol red.
- Yellow colour indicates acid production from salicin. Re-incubate media for additional 48 hours.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Yellow coloured clear solution without any precipitate.
pH (at 25°C)	: 6.9±0.2

INTERPRETATION

Cultural characteristics observed when incubated anaerobically after addition of phenol red indicator.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Acid from Salicin	Acid from Raffinose	Incubation Temperature	Incubation Period
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<i>Clostridium perfringens</i>	12924	50-100	Luxuriant	Negative reaction, no colour change or red	Positive reaction, yellow colour	35-37°C	18-72 Hours
<i>Clostridium sporogenes</i>	11437	50-100	Luxuriant	Negative reaction, no colour change or red	Negative reaction, no colour change or red	35-37°C	18-72 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.













Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Tenover F. C., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
2. Doyle M. P., Beuchat L. R. and Montville T. J., Food Microbiology, Fundamentals and Frontiers, ASM Press, Washington D.C.
3. Horwitz W., (Ed.), 2000, Official Methods of Analysis of AOAC International, 17th Ed., AOAC International, Gaithersburg, Maryland.

 Good Manufacturing Practices Certified	 For In Vitro Diagnostic Use	 Quantity	 Lot / Batch Number	 Catalogue Number	 Manufacturer
 Temperature Unit	 Authorized Representative MedNet GmbH Birkstrasse 10, 49163 Muenster, Germany	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
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