

TM 2396 – TRYPTONE SOYA YEAST EXTRACT AGAR, MODIFIED

INTENDED USE

Recommended for confirmation of *Listeria* and *Yersinia* in accordance with FDA BAM, 1998.

PRODUCT SUMMARY AND EXPLANATION

Tryptone Soya Yeast Extract Agar, Modified is recommended for the isolation and cultivation of *L. monocytogenes* and *Yersinia* from foods in accordance with FDA BAM, 1998. Food samples with suspected Listerial or Yersinia contamination are processed for the bacterial isolation using respective selective agars. Purification of isolated colonies on this medium is a mandatory step in the conventional analysis because isolated colonies on selective agar media may still be in contact with an invisible weak background of partially inhibited competitors. ISO Committee has also recommended this medium for confirmation of *Listeria* species. According to FDA's enrichment procedure for isolation of *L. monocytogenes* from dairy products, the sample to be tested is inoculated in enrichment broth and incubated at 30°C for 24-48 hours.

This culture is streaked on selective agar containing esculin and ferric citrate, such as Lithium-Phenylethanol-Moxalactam (LPM) Agar or Oxford Listeria agar, PALCAM Agar and incubated at 35°C for 48 hours. Presumptive *Listeria* colonies develop as black halo on esculin containing media. Transfer 5 or more typical colonies to Tryptone Soya Yeast Extract Agar, Modified streaking for purity and typical isolated colonies. Incubate at 30° for 24-48 hours. The plates may be incubated at 35°C if colonies will not be used for wet mount motility studies. Examine colonies with Henry's optical system which uses obliquely transmitted beamed white light powerful enough to illuminate the plate at a 45° angle. Colonies appear blue-gray to blue. The plate may be observed with the naked eye but use of a low power microscope or a dissecting microscope is preferred. Other colonies tend to be yellowish or orange. In case of *Yersinia* species, for biochemical characterization of *Yersinia*, growth of Lysine Arginine Iron Agar slant is streak cultured on one plate of Tryptone Soya Yeast Extract Agar, Modified and incubated at room temperature for 24-48 hours. This is further used for confirmation by biochemical tests.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	15.000
Papaic digest of soyabean meal	5.000
Yeast extract	6.000
Sodium chloride	5.000
Agar	15.000

PRINCIPLE

This medium is nutritious containing Casein enzymic hydrolysate and papaic digest of soyabean meal which provide amino acids and other complex nitrogenous substances. Yeast extract is the rich source of vitamin B complex. Sodium chloride maintains osmotic balance of cells. Agar acts as solidifying agent.

INSTRUCTION FOR USE

- Suspend 46 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS



Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Yellow coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.3±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Listeria monocytogenes</i>	19111	50-100	Good-luxuriant	>=50%	30°C	24-48 Hours
<i>Listeria monocytogenes</i>	19118	50-100	Good-luxuriant	>=50%	30°C	24-48 Hours
<i>Yersinia enterocolitica</i>	27729	50-100	Good-luxuriant	>=50%	30°C	24-48 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. FDA US. Bacteriological Analytical Manual. 8 ed. Gaithersburg, Md.: AOAC International; 1998.
2. International Organization for Standardization (ISO),1993, Draft ISO/DIS 10560.

 Good Manufacturing Practices Certified	 For In Vitro Diagnostic Use	 Quantity	 Lot / Batch Number	 Catalogue Number	 Manufacturer
 Temperature Unit	 Authorized Representative <small>MedNet GmbH Borkstrasse 10, 48163 Moenster, Germany</small>	 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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