TECHNICAL DATA SHEET

TSYE AGAR

ISOLATION OF *LISTERIA*

1 INTENDED USE

TSYE agar is a universal medium used in a number of applications or protocols. Given its excellent nutritive value, it is often used for the isolation and purification of microorganisms obtained from selective media (i.e. PALCAM agar, Oxford agar, **COMPASS® *Listeria* Agar**, etc.) for detection or enumeration of *Listeria*, and more specifically, *Listeria monocytogenes* according to the standards currently in vigor.

The typical composition corresponds to that defined in the standards ISO 11290-1 and NF EN ISO 11290-2.

2 PRINCIPLES

The association of Tryptone, papaic digest of soybean meal, yeast extract and glucose results in a synergy between the protein contribution of the casein, sugars from the soy peptone and glucose, and vitamins from yeast extract, allowing optimal growth for a number of both fastidious and non-fastidious bacteria.

Dipotassium phosphate acts as a buffering agent. By maintaining the pH, the recovery capacity of the medium is increased.

Sodium chloride maintains the osmotic equilibrium.

3 TYPICAL COMPOSITION

The composition can be adjusted in order to obtain optimal performance.

For 1 liter of media :

- Tryptone ..... 17,0 g
- Papaic digest of soybean meal ..... 3,0 g
- Yeast extract ..... 6,0 g
- Glucose ..... 2,5 g
- Dipotassium phosphate..... 2,5 g
- Sodium chloride ..... 5,0 g
- Bacteriological agar..... 11,0 g

pH of the ready-to-use media at 25 °C : 7,3 ± 0,2.

4 PREPARATION

Preparation from dehydrated media :

- Dissolve 47,0 g of dehydrated media (BK171) in 1 liter of distilled or demineralized water.
- Slowly bring to a boil, stirring with constant agitation until complete dissolution.
- Dispense in tubes or vials.
- Sterilize in an autoclave at 121 °C for 15 minutes.
- Cool and maintain the media in a molten state at 44-47 °C.
- Pour into sterile Petri plates and let solidify on a cool, flat surface.
- Dry the plates in an incubator, covers partially removed.

✓ **Reconstitution : 47,0 g/L**

✓ **Sterilization : 15 min at 121 °C**

Preparation from prepared media in vials or in vials of ready-to-melt media :

- If the media was prepared in advance as above, or if using the ready-to-melt media in tubes, melt the media with the minimum amount of time necessary in order to achieve total liquefaction.

5 INSTRUCTIONS FOR USE

- On the surface of the prepared plates, inoculate by streaking colonies taken from the selective media used, in order to obtain isolated, individual colonies.
- Incubate at 37 °C for 18 to 24 hours or until a sufficient amount of time allowing typical colonies of 1 to 2 mm in diameter.
- These typical colonies will then be submitted for biochemical identification tests.

✓ **Inoculation : Surface plating**

✓ **Incubation : 18 to 24 h at 37 °C**

6 QUALITY CONTROL

Dehydrated media : white cream powder, free-flowing and homogeneous.

Dehydrated media : Amber gel.

Typical culture response after 24 hours :

Microorganisms		Growth
Listeria monocytogenes 4b	WDCM 00021	Good, score 2
Listeria monocytogenes 1/2a	WDCM 00109	Good, score 2

7 STORAGE / SHELF LIFE

Dehydrated media : 2-30 °C.
Ready-to-melt media in tubes : 2-25 °C.
The expiration dates are indicated on the label.

Prepared media in tubes or vials (*) : 180 days at 2-25°C.
Prepared media in plates (*) : 30 days at 2-8 °C.
(*) Benchmark value determined under standard preparation conditions, following manufacturer's instructions.

8 PACKAGING

Dehydrated media :
500 g bottle BK171HA

Ready-to-melt media :
50 x 18 mL tubes BM10808

9 BIBLIOGRAPHY

NF EN ISO 11290-1. Février 1997. Microbiologie des aliments. Méthode horizontale pour la recherche et le dénombrement de *Listeria monocytogenes.* Partie 1 : Méthode de recherche.
Modifiée en Février 2005 par l'amendement A1 : Modification des milieux d'isolement, de la recherche de l'hémolyse et introduction de données de fidélité.

NF EN ISO 11290-2. Août 1998. Microbiologie des aliments. Méthode horizontale pour la recherche et le dénombrement de *Listeria monocytogenes.* Partie 2 : Méthode de dénombrement. Modifiée en Février 2005 par l'amendement A1: Modification du milieu d'isolement.

10 ADDITIONAL INFORMATION

COMPASS® is a registered trademark of SOLABIA S.A.S

The information provided on the labels take precedence over the formulations or instructions described in this document and are susceptible to modification at any time, without warning.

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