

**TRYPTONE SOYA YEAST EXTRACT AGAR****TM 471**

For isolation and cultivation of *Listeria* from Henry's light

Composition

Ingredients	Gms/Ltr.
Tryptone	17.00
Agar	15.00
Yeast extract	6.00
Sodium chloride	5.00
Soya peptone	3.00
Dipotassium phosphate	2.50
Glucose monohydrate	2.50

* Dehydrated powder, hygroscopic in nature, store, in a dry place in tightly- sealed containers below 25°C and protect from direct Sunlight.

Instructions for Use

Dissolve 51.00gms in 1000ml of distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes. Cool the medium to 45 - 50°C and pour into sterile Petri plates.

Appearance: Yellow colour, clear gel

pH (at 25°C): 7.3 ± 0.2

Principle

TRYPTONE SOYA YEAST EXTRACT AGAR used for the isolation and cultivation of *Listeria* from Henry's light. This media is formulated according to APHA and ISO committee for the confirmation and cultivation of *Listeria* sp. Later, FDA recommends this medium for Tryptone, Soya peptone and Yeast extract provide nitrogenous compounds, vitamin B complex and other essential growth nutrients. Glucose is the fermentable carbohydrate which helps in providing carbon and energy sources. Dipotassium phosphate acts as a buffer system Sodium chloride supplies the essential electrolytes for transport & osmotic balance. Agar is solidifying agent. The FDA recommends this medium as purification medium for *Listeria monocytogenes* in dairy products. After enrichment the cultures are streaked out on McBride Listeria Agar Base (TM 905) with McBride Listeria Supplement (TS 096). Presumptive *Listeria* colonies are selected under 45 tans illumination and then purified on Tryptone Soya Yeast Extract Agar. *Listeria* colonies are dense white and to iridescent white appearing as crushed glass. Other colonies tend to be yellowish or orange.

Interpretation

Cultural characteristics observed after inoculating (10³CFU/ml), on incubation period of 24 - 48 hours at 35 ± 2°C.

Microorganisms	ATCC	Growth
<i>Listeria monocytogenes</i>	19111	Good
<i>Listeria monocytogenes</i>	19118	Good
<i>Listeria monocytogenes</i>	15313	Good
<i>Listera innocua</i>	33090	Good

References

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4. R.V. Lachica, Simplified Henry technique for initial recognition of *Listeria* colonies, Appl Environ Microbiol., 56(4), 1164. (1990).
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