

LISTERIA OXFORD AGAR

Selective medium for *Listeria spp* isolation and differentiation in foods, milk and dairy products and clinical and environmental samples (ISO 10560).

TYPICAL FORMULA	(g/l)
Peptospecial	10.0
Peptone	3.0
Tryptose	10.0
Maize Starch	1.0
Sodium Chloride	5.0
Esculin	1.0
Ferric Ammonium Citrate	0.5
Lithium Chloride	15.0
Colistin Sulphate	0.02
Cycloeximide (Actidione)	0.4
Acriflavine	0.005
Agar	15.0

Final pH = 7.0 ± 0.2 at 25 °C.

DIRECTIONS

Suspend 60.9 g of powder in 1 liter of distilled or deionized water. Heat until completely dissolved. Sterilize in autoclave at 121°C for 15 minutes. Cool to 45-50°C. Aseptically add 2 vials of Listeria Oxford Supplement (cefotetan 1 mg/vial, Phosphomycin 5 mg/vial) (code 81027), each vial reconstituted with 5 ml of sterile distilled water. Mix well. Dispense in petri dishes.

DESCRIPTION

LISTERIA OXFORD AGAR, is a selective medium for the isolation of *Listeria spp* in foods, milk and dairy products, environmental and clinical specimens after enrichment in the appropriate broth, according to ISO 10560: 1993. The selectivity is due to cycloeximide which inhibits the growth of fungi and to phosphomycin and cefotetan which inhibit containing bacteria. The presence of aesculin and ferric ammonium citrate allows a presumptive identification of the black colonies. In fact the *Listeria* species hydrolyze the aesculin to glucose and esculetin which reacts with the ferric ions in the medium. *Listeria spp* colonies can appear in dark/black color surrounded by a zone of the same color. The suspected colonies must be submitted to Gram coloring, identification biochemical test, hemolysis tests on Columbia + 5% Sheep Blood, Camp test S and Camp test R.

TECHNIQUE

Streak a loopful of the suitable enriched broth, incubated with the sample to analyze, onto the surface of the medium. Incubate at 36 ± 1°C for 24-48 hours. Observe for the presence of *Listeria* typical colonies that are grey-brown with brown or black halo.

QUALITY CONTROL

Dehydrated medium

Appearance: free-flowing, homogeneous.

Color: beige.

Prepared medium

Appearance: clear.

Color: dark amber.

Incubation conditions: 36 ± 1°C for 40-48 hours.

Microorganism	ATCC	Growth	Characteristics
<i>Listeria monocytogenes</i>	19111	good	gray colonies / black halo
<i>Listeria monocytogenes</i>	13932	good	gray colonies / black halo
<i>Escherichia coli</i>	25922	inhibited	
<i>Enterococcus faecalis</i>	29212	inhibited	
<i>Candida albicans</i>	10231	inhibited	



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STORAGE

The powder is very hygroscopic: store the powder at 10-30 °C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident.
Store prepared plates at 2-8 °C.

REFERENCES

1. TIL - IDF (1988). Provisional of Recommended Method. Milk and Milk Products. Detection *Listeria Monocytogenes*.
2. ISO 10560: Milk and milk products- detection of *Listeria monocytogenes*. (1993).

PRESENTATION









Product	REF	
LISTERIA OXFORD AGAR (8.2 l)	610167	500 g
LISTERIA OXFORD AGAR (1.6 l)	620167	100 g
LISTERIA OXFORD supplement	81027	10 vials

TABLE OF SYMBOLS

LOT Batch code	 Caution, consult accompanying documents	 Manufacturer	 Contains sufficient for <n> tests	 Keep away from heat source
REF Catalogue number	 Fragile, handle with care	 Use by	 Temperature limitation	



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