

Palcam Listeria Agar Base

Selective and differential medium for the diagnose and detection of *Listeria monocytogenes*

Formula in grams per liter:

Columbia Agar Base	39,00	Lithium Chloride	15,00
Mannitol	10,00	Yeast Extract	3,00
Esculin	0,80	Glucose	0,50
Ferric Ammonium Citrate	0,50	Phenol Red	0,08

Final pH: 7,2 ± 0,2 at 25 °C

Preparation:

Suspend 34,5 grams of medium in 500 ml. of distilled water. Heat with frequent agitation until complete dissolution. Distribute into appropriate containers. Sterilize in autoclave at 121°C (15 lbs. psi) during 15 minutes. Cool to 50°C and aseptically add the reconstituted supplement .

Uses:

Palcam medium is recommended for isolation of *Listeria monocytogenes* in food products. It is highly selective due to the presence of lithium chloride, Ceftazidime, Polymixin B and Acryflavine. This allows the easy differential diagnose of *Listeria monocytogenes* using a double system indicator: Esculin and iron and Mannitol and phenol red.

Listeria monocytogenes hydrolyses the Esculin which brings about the formation of a black Zone around the colony. *Listeria monocytogenes* does not ferment the mannitol; differentiation of contaminants is easy as enterococci and estafilococci ferment same and produce a change from red to yellow due to the pH indicator of phenol red.

The addition of egg yolk emulsion favors the recuperation of harmed *Listeria* strains.

Microbiological Tests:

Microorganisms	Growth	Black zone
<i>Listeria monocytogenes</i> ATCC 19117	Good	+
<i>Staphylococcus aureus</i> ATCC 25923	Good	-

