

**BIOMARK Laboratories-INDIA**

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**TECHNICAL SHEET**

<b>B1417</b>	<b>LISTERIA PALCAM AGAR BASE</b>	
<b>Formula</b>		
<b>Ingredients:</b>	<b>gms/lit.</b>	
Peptone, special	23.00	
Yeast Extract	3.00	
Corn's starch	1.00	
Sodium chloride	5.00	
D-Mannitol	10.00	
Ferric ammonium citrate	0.50	
Esculin	0.80	
Dextrose, anhydrous	0.50	
Lithium chloride	15.00	
Phenol red	0.08	
Agar	10.00	
Final pH (at 25°C): 7.2 + 0.2		
<b>Directions:</b>		
Suspend 34.44 grams in 500 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add rehydrated contents of 1 vial of Listeria Selective Supplement (PALCAM)(BF072). Mix well and pour into sterile Petri plates.		
<b>Principle:</b>		
Peptone special and yeast extract provide nitrogenous and carbonaceous compounds, long chain amino acids, vitamin B complex and other essential growth nutrients. This is highly selective medium due to the presence of lithium chloride, acriflavine hydrochloride, ceftazidime and polymyxin B. This medium employs two indicator systems, esculin-ferric ammonium citrate and mannitol-phenol red. Listeria monocytogenes hydrolyzes esculin to esculetin and dextrose. Esculetin reacts with ferric ammonium citrate to form a brown-black complex seen as a black halo around colonies. Dextrose and starch serve as energy source. Contaminants such as Staphylococci ferment mannitol and is indicated by colour change from red to yellow rendering easy differentiation. Incubation in microaerophilic condition inhibits strict aerobes such as Bacillus and Pseudomonas species.		
<b>QC Tests – (I) Dehydrated Medium</b>		
Colour:	Light yellow to pink	
Appearance:	Homogeneous Free Flowing powder	
<b>(II) Rehydrated medium</b>		
pH (post autoclaving/heating):	7.2 ± 0.2	
Colour (post autoclaving/heating):	Red	
Clarity (post autoclaving/heating):	Clear to slightly opalescent	
<b>(III) Q.C. Test Microbiological</b>		
Cultural characteristics observed under microaerophilic condition, with added Listeria Selective Supplement (BF072) after an incubation at 35-37°C for 48 hours.		
MICROORGANISM (ATCC)	GROWTH	COLONY CHARACTERISTICS
Listeria monocytogenes (19112)	Good-luxuriant	Grey-green with black centre and a black halo
Staphylococcus aureus (25923)	None – poor	Yellow colonies with yellow halo.
Enterococcus faecalis (29212)	None – poor	Grey colonies with a brown-green halo.
Enterococcus faecalis (19433)	None – poor	Grey colonies with a brown-green halo.
Listeria monocytogenes (19111)	Good-luxuriant	Grey-green with black center and a black halo
Listeria monocytogenes (19117)	Good-luxuriant	Grey-green with black center and a black halo
Listeria monocytogenes (19118)	Good-luxuriant	Grey-green with black center and a black halo

Refer disclaimer Overleaf

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	Listeria monocytogenes (13932)	Good-luxuriant	Grey-green with black center and a black halo		
	Listeria monocytogenes (35152)	Good-luxuriant	Grey-green with black center and a black halo		
	Listeria innocua (33090)	Good-luxuriant	Grey-green with black center and a black halo		
	Escherichia coli (25922)	None – poor			
	Escherichia coli (8739)	None – poor			
<b>Precautions :</b>	1. For Laboratory Use. 2. Follow proper, established laboratory procedures in handling and disposing of infectious materials. 3. HARMFUL. Possible risk of irreversible effects. Possible risk of harm to the unborn child. Harmful if swallowed. Avoid contact with skin and eyes. Do not breathe dust. Wear suitable protective clothing. Keep container tightly closed. Target organ(s) : Cardiovascular, Liver, Lungs, Nerves.				
<b>Limitations :</b>	1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.				
<b>Use:</b>	For the detection and enumeration of Listeria monocytogenes from food and animal feeds. The composition and performance of this medium are as per the specification laid down in ISO 11290-2 : 2017.				
<b>Storage:</b>	Dehydrated medium- below 30 ° C Prepared mediums- Between 2 to 8°C.				
<b>Packing:</b>	500 gm. bottle				
<b>Product profile:</b>	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
<b>B1417</b>	68.88 g/l	7.259 lit	7.2 ± 0.2	Listeria Selective Supplement (PALCAM) (BF072)	121°C/15 min

**Disclaimer:**

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related BIOMARKLABORATORIES publications.

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