

**BIOMARK Laboratories-INDIA**

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**TECHNICAL SHEET**

<b>B1449</b>	<b>BILE ESCULIN AZIDE AGAR</b>		
<b>Formula</b>			
<b>Ingredients:</b>	<b>Gms/lit</b>		
Tryptone	17.00		
Peptone	3.00		
Yeast extract	5.00		
Oxgall	10.00		
Sodium chloride	5.00		
Esculin	1.00		
Ferric ammonium citrate	0.50		
Sodium azide	0.15		
Agar	13.00		
Final pH (at 25°C) :	7.1± 0.2		
<b>Directions :</b>			
Suspend 54.7gms. in 1000 ml. distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121 °C) for 15 minutes. Caution: Sodium azide has a tendency to form explosive metal azides with plumbing materials. It is advisable to use enough water to flush off the disposables.			
<b>Principle :</b>			
This highly nutritious medium because of presence of Tryptone, Peptone and beef extract. Sodium azide inhibits growth of gram-negative organisms and permits the cultivation of faecal Streptococci. Esculin hydrolysis and bile tolerance permit isolation and identification of group D Streptococci in 24 hours. Agar is the solidifying agent.			
<b>QC Tests – (I)Dehydrated Medium</b>			
Colour :	Light to medium yellow		
Appearance :	Homogeneous Free Flowing powder		
<b>(II)Rehydrated medium</b>			
PH (post autoclaving/heating) :	7.1 ± 0.2		
Colour (post autoclaving/heating) :	Light to medium amber		
Clarity (post autoclaving/heating) :	Clear to slightly opalescent		
<b>(III)Q.C. Test Microbiological</b>			
Cultural characteristics observed after 18 –24 hrs at 35- 37°C.			
MICROORGANISM (ATCC)	GROWTH	ESCULIN HYDROLYSIS	
Enterococcus faecalis (29212 )	Luxuriant	+	
Streptococcus bovis (27960 )	Luxuriant	+	
Proteus mirabilis (25933 )	Luxuriant	-	
Staphylococcus aureus (25923 )	Good	-	
Streptococcus pyogenes (19615 )	None - poor	-	
Escherichia coli (25922 )	Inhibited		
Key : + = blackening of medium - = no change			

Refer disclaimer Overleaf

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<b>Precautions :</b>	1. For Laboratory Use.				
	2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.				
	3. HARMFUL. Irritating to eyes, respiratory system and skin. Avoid contact with skin and eyes. Do not breathe dust. Wear suitable protective clothing. Keep container tightly closed. Target organ(s) : Cardiovascular, 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.				
	2. Staphylococcus aureus and Staphylococcus epidermidis may exhibit growth on the medium (less than 1 mm, white – gray colonies), but they will show no action on the esculin.				
	3. Other than the enterococci, Listeria monocytogenes consistently blackens the medium around colonies. After 18-24 hrs., there may be a reddish to black – brown zone of hydrolysis surrounding pinpoint Listeria colonies. After 48 hours, white – gray pigmented colonies will be seen. Listeria do not attain the same degree of esculin hydrolysis displayed by enterococci in this short incubation period.				
<b>Use :</b>	For isolation and presumptive identification of faecal Streptococci. Recommended by ISO 7899-2.				
<b>Storage :</b>	Dehydrated medium-below 30°C Prepared medium- 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>B1449</b>	54.7 g/l	9.14 L	7.1± 0.2	NIL	121 <sup>0</sup> C / 15 minutes

**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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