

**TECHNICAL SHEET**

<b>B1017</b>	<b>ESCULIN AGAR</b>				
<b>Formula</b>					
<b>Ingredients :</b>		<b>gms/lit.</b>			
Casein enzymic hydrolysate		13.00			
Sodium chloride		5.00			
Yeast extract		5.00			
Meat heart infusion (solids)#		2.00			
Esculin		1.00			
Ferric citrate		0.50			
Agar		15.00			
# equivalent to Beef heart infusion solids					
Final pH (at 25°C) : 7.3± 0.2					
<b>Directions :</b>					
Suspend 41.5 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Distribute into screwcapped tubes in 3 ml volumes or as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool tubes in a slanted position.					
<b>Principle :</b>					
Casein enzymic hydrolysate and beef heart infusion (solids) provide amino acids and other nitrogenous substances that support bacterial growth. Esculin is a differentiating agent, which helps in identification of esculin-positive organism. Esculin is hydrolyzed to dextrose and esculetin, which forms a brown black complex in the presence of iron salt (ferric citrate) (2). Blackening of the agar medium in the area of growth indicates esculin hydrolysis.					
<b>QC Tests - (I) Dehydrated Medium</b>					
	Colour :	Cream to yellow			
	Appearance :	Homogeneous Free Flowing powder			
<b>(II) Rehydrated medium</b>					
	pH (post autoclaving/heating) :	7.3 ± 0.2			
	Colour (post autoclaving/heating) :	Amber			
	Clarity (post autoclaving/heating) :	Clear to slightly opalescent gel forms in tubes as slants			
<b>(III) Q.C. Test Microbiological</b>					
Cultural characteristics observed after 18-24 hrs. at 35-37°C.					
	MICROORGANISM (ATCC )	GROWTH	ESCULIN	HYDROLYSIS	
	Escherichia coli (25922)	Good	-		
	Enterococcus faecalis (29212)	Luxuriant	+		
	Streptococcus pyogenes (19615)	Luxuriant	-		
	Key : + = blackening of the medium				
	- = no change				
<b>Precautions :</b>	<ol style="list-style-type: none"> <li>1. For Laboratory Use.</li> <li>2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.</li> <li>3. Warning : Sodium azide has a tendency to form explosive metal azides with plumbing It is advisable to use enough water to flush off the disposables.</li> </ol>				
<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>	It is a differential medium for demonstrating esculin hydrolysis by various microorganisms				
<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>B1017</b>	41.5 g/l	12.05L	7.3 ± 0.2	Nil	121°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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