

**TECHNICAL SHEET**

<b>B1171</b>	<b>ECD MUG AGAR</b>					
<b>Formula</b>						
<b>Ingredients:</b>			<b>gms/lit.</b>			
Casein enzymic hydrolysate			20.00			
Lactose			5.00			
Sodium chloride			5.00			
Bile salts mixture			1.50			
Dipotassium hydrogen phosphate			4.00			
Monopotassium dihydrogen phosphate			1.50			
Tryptophan			1.00			
4-Methylumbelliferyl β-D-Glucuronide (MUG)			0.070			
Agar			15.00			
Final pH (at 25°C): 7.0± 0.2						
<b>Directions:</b>						
Suspend 53.07 grams 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. Cool to 45-50°C. Mx well and pour into sterile Petri plates.						
<b>Principle:</b>						
Casein enzymic hydrolysate provides the nitrogen, vitamins and amino acids. Lactose is the carbon source in this medium. Bile salts mixture is the selective agent against gram-positive bacteria, particularly bacilli and fecal streptococci. Dipotassium phosphate and mono potassium phosphate are buffering agents. Sodium chloride maintains the osmotic balance of the medium. E.coli produces the enzyme glucuronidase that hydrolysis MUG to yield a fluorogenic product that is detectable under long wave (366 nm) UV light. Tryptophan serves as the substrate for indole reaction. The water sample is filtered through filter membranes, which are then placed on ECD MUG Agar and incubated overnight. After incubation observe for the presence of fluorescence under UV light. Lay a drop of Kovacs Indole reagent (R008) on the colonies. Indole positive colonies form a red zone around the colony. MUG positive and indole positive colonies are enumerated as E. coli .						
<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) :			7.0± 0.2			
Colour (post autoclaving/heating):			Yellow			
Clarity (post autoclaving/heating):			Clear to slightly opalescent			
<b>(III) Q.C. Test Microbiological</b>						
Cultural characteristics observed after 18-24 hours at 35-37°C.						
MICROORGANISM (ATCC)		GROWTH	Indole	Fluorescence (under 366nm)		
Escherichia coli (25922)		good-luxuriant	negative reaction	Negative		
Enterobacter aerogenes(13048)		good-luxuriant	positive reaction, red zone around the colony	Positive		
Staphylococcus aureus (25923)		Inhibited	--	--		
<b>Precautions :</b>		1. For Laboratory Use. 2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.				
<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 recommended for demonstrating the presence of Escherichia coli by fluorescence in UV and positive indole test while inhibiting accompanying intestinal flora.				
<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>B1171</b>	53.07 g/l	9.42L	7.0 ± 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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