

**BIOMARK Laboratories-INDIA**

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**TECHNICAL SHEET**

<b>B584</b>	<b>MOTILITY MEDIUM S</b>				
<b>Formula</b>					
<b>Ingredients :</b>					
	<b>gms/lit.</b>				
Meat heart,infusion from	500.00				
Tryptose	10.00				
Gelatin	30.00				
Sodium chloride	5.00				
Dipotassium phosphate	2.00				
Potassium nitrate	2.00				
Agar	1.00				
Final pH (at 25°C) : 7.3 ± 0.2					
<b>Directions :</b>					
Suspend 60 gms. 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 & add 1% solution of 2,3,5-Triphenyl Tetrazolium Chloride. Mix well & dispense in sterile tubes.					
<b>Principle :</b>					
Infusion from Meat Heart, Gelatin and Tryptose provide nitrogen, vitamins and amino acids to support growth of fastidious microorganisms. Sodium Chloride maintains the osmotic balance of the medium and also induces the swarming of Proteus species. Dipotassium Phosphate provides buffering capability and has been shown to have a stimulatory effect on the motility of Proteus species. Potassium Nitrate provides trace elements necessary for bacterial growth. Organisms capable of reducing nitrate, especially nitrate – reducing obligate aerobes, exhibit increased motility in the presence of 0.2% Potassium Nitrate. Agar is a solidifying agent at a concentration that preserves the line of inoculation. TTC (2,3,5 – triphenyltetrazolium chloride) facilitates the detection of motility. Growth along or out from the stab line is made readily visible because formazan precipitates when TTC is reduced by a microorganism.					
<b>QC Tests – (I)Dehydrated Medium</b>					
Colour :	Cream to yellow				
Appearance :	Coarse, free flowing powder				
<b>(II)Rehydrated medium</b>					
pH (post autoclaving/heating) :	7.3 ± 0.2				
Colour (post autoclaving/heating) :	Light to medium yellow				
Clarity (post autoclaving/heating) :	Slightly opalescent				
<b>(III) Q.C. Test Microbiological</b>					
Cultural characteristics observed after 18- 48 hours at 35-37°C.					
MICROORGANISM (ATCC )	GROWTH	MOTILITY	TTC REDUCTION		
Enterobacter aerogenes (13048)	Luxuriant	+	+		
Escherichia coli (25922)	Luxuriant	+	+		
Klebsiella pneumoniae (13883 )	Luxuriant	-	+		
Proteus mirabilis (25933)*	Luxuriant	-	+		
Key: * = motility is temperature dependent, possibly absent at 35°C and present at 20°C.					
<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>	For easy detection of bacterial motility by means of TTC reduction.				
<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>B584</b>	60g/l	8.333L	7.3 ± 0.2	2,3,5-Triphenyl Tetrazolium Chloride	121°C / 15 minutes

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