### **BIOMARK Laboratories-INDIA**

## www.biomarklabs.com

## **TECHNICAL SHEET**

B277	OF BASAL MEDIUM		
Formula			
Ingredients:		gms/lit.	
Casein enzymic hydrolysate		2.00	
Sodium chloride		5.00	
Dipotassium phosphate		0.30	
Bromothymol blue		0.08	
Agar		2.00	
Final pH (at 25°C):	6.8 <u>+</u> 0.2		

### **Directions:**

Suspend 9.38 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense in 100 ml amounts and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. To first 100 ml of sterile basal medium, aseptically add 10 ml of sterile 10% dextrose solution. To second 100 ml add 10 ml sterile 10% lactose solution. To third 100 ml add 10 ml sterile 10% saccharose solution. Mix and dispense aseptically in 5 ml amounts in sterile tubes in duplicate for aerobic and anaerobic fermentation.

# **Principle:**

Casein enzymic hydrolysate in the medium provides the necessary carbon and nitrogen, vitamins etc. required for bacterial growth. A carbohydrate whose fermentation reaction is to be studied is added separately. Phosphate buffers the medium and the low agar concentration determines motility and dispersion of the acid produced on the surface. Bromothymol blue acts as the pH indicator. The low concentration of agar permits the determination of motility and aids in the even distribution of any acid produced at the surface of the medium. Motility is observed as diffused zone of flaring out from the line of inoculation. Non-motile organisms grow along the line of inoculation. Glucose is the carbohydrate commonly added to the OF Basal Medium, lactose, maltose, mannitol, saccharose and xylose may also be used. Sodium chloride maintains the osmotic balance of the medium. Dipotassium Phosphate provides buffering capacity. Bromo Thymol Blue acts as a pH indicator, changing to yellow under acidic conditions.

Thymol Blue acts as a pH indicator, changing to yellow under acidic conditions.							
QC Tests - (I)Dehydrated Medium							
Colour:	Cream to greenish yellow						
Appearance:	Homogeneous	Homogeneous Free Flowing powder					
(II)Rehydrated medium							
pH (post autoclaving/heating):	$6.8 \pm 0.2$						
Colour (post autoclaving/heating):	Green	Green					
Clarity (post autoclaving/heating):	Clear to slight	Clear to slightly opalescent					
(III)Q.C. Test Microbiological							
Cultural characteristics observed after	Cultural characteristics observed after 18 – 48 hrs at 35-37°C.						
MICROORGANISM (ATCC)	ONLY BASA	ONLY BASAL MEDIUM W/DEXTROSE		ROSE			
	UNCOVERED	COVERED	UNCOVERED	COVERED			
Acinetobacter baumannii (19606)	K	K	Α	K			
Alcalescens faecalis (8750)	K	K	K	K			
Enterobacter aerogenes (13048)	K	K	AG	AG			
Escherichia coli (25922)	K	K	AG	AG			
Pseudomonas aeruginosa (9027)	K	K	Α	K			
Salmonella enteritidis (13076)	K	K	AG	AG			
Shigella flexneri (12022)	K	K	Α	Α			
Vibrio cholerae (15748)	K	K	Α	Α			
Key : K = alkaline, green (no change)							
A = acid, yellow							
G = gas. (sometimes observable)							

Refer disclaimer Overleaf

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## **TECHNICAL SHEET**

1. For Laboratory Use.							
2. Follow proper, established laboratory procedures in handling and disposing of							
infectious materials.							
1. Since the nutritional requirements of organisms vary, some strains may be							
encountered that fail to grow or grow poorly on this medium.							
2. The acid reaction produced by oxidative organisms is apparent at the surface							
and gradually spreads throughout the medium. If the oxidation is weak or slow,							
however, an initial alkaline reaction at the surface of the open tube may persist							
for several days and eventually convert to an acid reaction.							
3. If an organism is unable to grow on Of Basal Medium, Cowan recommends							
adding either 2% serum or 0.1% yeast extract to each carbohydrate tube.							
4. Nonsaccharolytic organisms produce a slight alkalinity in the open tube (blue							
- green colour), while the covered tube will not exhibit a colour change (green).							
Used for the determination of oxidative and fermentative metabolism of							
carbohydrates by gram-negative bacteria.							
Dehydrated medium- below 30°C Prepared medium- Between 2 to 8°C.							
500 gm. bottle							
Reconstitution	Quantity on	pH (25°C)	Supplement	Sterilization			
	Preparation (500g)						
9.38 g/l	53.30 L	6.8 <u>+</u> 0.2	10% lactose	121°C/15			
			solution. 10%	min.			
			saccharose				
			solution.				
	2. Follow proper, einfectious material 1. Since the nutrition encountered that for the acid reaction and gradually spressive however, an initial for several days ar 3. If an organism in adding either 2% of the determinant	2. Follow proper, established laboratory infectious materials.  1. Since the nutritional requirements of encountered that fail to grow or grow p  2. The acid reaction produced by oxidat and gradually spreads throughout the n however, an initial alkaline reaction at t for several days and eventually convert  3. If an organism is unable to grow on adding either 2% serum or 0.1% yeast  4. Nonsaccharolytic organisms produce – green colour), while the covered tube Used for the determination of oxidative carbohydrates by gram-negative bacter Dehydrated medium- below 30°C Preparation grants on preparation (500g)	2. Follow proper, established laboratory procedures i infectious materials.  1. Since the nutritional requirements of organisms varied encountered that fail to grow or grow poorly on this respective to a produced by oxidative organisms and gradually spreads throughout the medium. If the however, an initial alkaline reaction at the surface of for several days and eventually convert to an acid reaction at the surface of for several days and eventually convert to an acid reaction grow on Of Basal Medical adding either 2% serum or 0.1% yeast extract to each 4. Nonsaccharolytic organisms produce a slight alkaling green colour), while the covered tube will not exhibit Used for the determination of oxidative and fermental carbohydrates by gram-negative bacteria.  Dehydrated medium-below 30°C Prepared medium-500 gm. bottle  Reconstitution Quantity on ph (25°C) Preparation (500g)	2. Follow proper, established laboratory procedures in handling and infectious materials.  1. Since the nutritional requirements of organisms vary, some strain encountered that fail to grow or grow poorly on this medium.  2. The acid reaction produced by oxidative organisms is apparent at and gradually spreads throughout the medium. If the oxidation is whowever, an initial alkaline reaction at the surface of the open tube for several days and eventually convert to an acid reaction.  3. If an organism is unable to grow on Of Basal Medium, Cowan recadding either 2% serum or 0.1% yeast extract to each carbohydrate.  4. Nonsaccharolytic organisms produce a slight alkalinity in the open green colour), while the covered tube will not exhibit a colour chall used for the determination of oxidative and fermentative metabolism carbohydrates by gram-negative bacteria.  Dehydrated medium-below 30°C Prepared medium-Between 2 to 300 gm. bottle  Reconstitution Quantity on pH (25°C) Supplement Preparation (500g)  9.38 g/l 53.30 L 6.8 ± 0.2 10% lactose solution. 10% saccharose			

## 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.

The information contained in this publication is based on our in-house studies and market performance and is to the best of our

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