B407	PURPLE BROTH BASE

Formula

Ingredients :	**gms/lit.**
Proteose peptone	10.00
Meat extract B#	1.00
Sodium chloride	5.00
Bromo cresol purple	0.02

Final pH (at 25°C) : 6.8 ± 0.2

Directions :

Suspend 16.02 grams in 1000 ml distilled water. If desired add 5-10 grams of the carbohydrate to be tested. Heat if necessary to dissolve the medium completely. Dispense in tubes containing inverted Durhams tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Alternatively, to 900 ml of sterile and cooled basal medium aseptically add 100 ml of sterile 5 - 10% solution (final concentration 0.5 to 1 %)

Principle :

Meat extract B and peptone special or proteose peptone supply the essential nutrients especially nitrogen sources to the growing organisms. Sodium chloride maintains the osmotic balance of the medium. Bromocresol purple is the pH indicator, which turns yellow at acidic pH. Gas production is evident by its collection in Durham's tube. The acid produced during the fermentation of carbohydrate causes bromocresol purple, the pH indicator to turn yellow. If the carbohydrate is not utilized or fermented, the color of the medium remains unchanged or becomes more alkaline (darker purple) due to decarboxylation of the amino acids present in the medium.

QC Tests – (I)Dehydrated Medium	
Colour :	Light yellow to light green
Appearance :	Homogeneous Free Flowing powder
(II)Rehydrated medium	
pH (post autoclaving/heating) :	6.8 ± 0.2
Colour (post autoclaving/heating) :	Purple
Clarity (post autoclaving/heating) :	Clearsolution in tubes

(III)Q.C. Test Microbiological

Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours with and without addition of 1% Dextrose

MICROORGANISM (ATCC)	GROWTH	WITHOUT CARBOHYDRATE		WITH 1% DEXTROSE	
		ACID	GAS	ACID	GAS
Neisseria meningitides (13090)	Good- luxuriant	-	-	+	-
Escherichia coli (25922)	Luxuriant	-	-	+	+
Staphylococcus aureus (25923)	Luxuriant	-	-	+	-
Listeria monocytogenes (19112)*	Luxuriant	-	-	+	-

Precautions :	1. For Laboratory Use.
	2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.

Refer disclaimer Overleaf

Rev: December 2020

Limitations :	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 additon of some carbohydrates to the media may result in an acid reaction. In this case, it is suggested that the proper pH be restored by adding sterile 0.1N sodium hydroxide dropwise.				
	3. Avoid excessive heating or prolonged heat exposure of media to avoid hydrolysis of the carbohydrates.				
	4. Tubes should be tightly stoppered during the incubation period for fermentation studies of the enteric group to avoid reversion caused by rapid depletion of the carbohydrate(s).				
Use :	It is recommended for the fermentation studies of Listeria monocytogenes				
Storage :	Dehydrated medium- below 30°C Prepared medium– Between 2 to 8°C.				
Packing :	500 gm. bottle				
Product profile:	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
B407	16.02 g/l	31.21 L	6.8 ± 0.2	carbohydrate	121^0C / 15 minutes

Rev: December 2020