B182	EIJKMAN LACTOSE BROTH

Formula

Ingredients :	gms/lit.
Tryptose	15.00
Lactose	3.00
Dipotassium phosphate	4.00
Monopotassium phosphate	1.50
Sodium chloride	5.00

Final pH (at 25°C) : 6.8 ± 0.2

Directions :

Suspend 28.5 grams in 1000 ml distilled water. For examination of 10 ml portions of water samples, use 57 grams per 1000 ml distilled water. Heat if necessary, to dissolve the medium completely. Dispense into tubes with inverted Durham's fermentation tubes. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle :

Eijkman described a method for separating the strains of E. coli from the feces of warm blooded and cold-blooded animals. This method had limitation due to the inability to obtain growth after sub culturing from positive tubes incubated at 46°C, as acidity and high temperature results in death of the culture within 24-48 hours. Perry and Hajna modified Eijkman's original method by decreasing carbohydrate content and adding a phosphate buffer enabling to subculture E.coli after incubation at 46°C for 96 hours or longer where pH was 5.6 unlike 4.5 of Eijkman medium. Perry modified Eijkman medium using lactose for isolation of E.coli. This medium can also be used for water filtration control work.

Tryptose and lactose in the medium are the energy and the carbon sources respectively. E. coli ferment lactose to form acid and gas. The gas produced gets trapped in the form of gas bubbles in the inverted Durham's tubes. Phosphates buffer the medium whereas sodium chloride helps to maintain the osmotic equilibrium of the medium.

QC Tests – (I)Dehydrated Medium					
	Colour :	Cream to yellow			
	Appearance :	Homogeneous Free Flowing powder			
(II)Rehydrated medium					
	pH (post autoclaving/heating) :	6.8 ± 0.2			
	Colour (post autoclaving/heating) :	Light yellow			
	Clarity (post autoclaving/heating) :	Clear			
(III)Q.C. Test Microbiological					
	Cultural characteristics observed after an incubation at 45.5 to 46ºC for 24 - 48 hours.				
	MICROORGANISM (ATCC)	GROWTH	GAS		
	Escherichia coli (25922)	Luxuriant	+		
	Enterobacter aerogenes (13048)	Poor	-		

Precautions :	1. For Laboratory Use. 2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.
Limitations :	1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.
Use :	For detection and differentiation of Escherichia coli from other coliforms on the basis of their ability to grow and liberate gas from lactose.
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
B182	28.5g/l	17.54L	6.8 ± 0.2	Nil	121^0C / 15 minutes

Refer disclaimer Overleaf

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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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