

B1121	KETOGLUCONATE BROTH				
Formula					
Ingredients :		gms/lit.			
Potassium gluconate		20.00			
Potassium dihydrogen phosphate		5.40			
Potassium nitrate		2.00			
Final pH (at 25°C) : 6.5± 0.2					
Directions :					
Suspend 27.4 grams in 1000 ml distilled water. Mix thoroughly. Filter sterilize the medium and aseptically distribute into sterile screw-capped tubes.					
Principle :					
The medium contains potassium gluconate, which is used as sole carbon source, and potassium nitrate, which is the nitrogen source. Inoculate heavy inoculum into 1ml of the sterile, dispensed medium. Incubate at 37°C for 48 hrs. Then add 1ml of Benedict's reagent for reducing sugars, place the tube in a boiling water bath for 10 minutes. Observe for the production of a coloured precipitate of cuprous oxide. Organisms capable of oxidative metabolism use potassium gluconate as their sole carbon source, leading to the accumulation of 2-ketogluconate in the medium. 2-ketogluconate reduces copper sulphate, when heated, to an insoluble cuprous oxide, which is precipitated out as yellow to orange-to-orange red precipitate. The colour produced depends on the amount of 2- ketogluconate accumulated, the greater the amount, the more orange-to-orange red the colour becomes.					
QC Tests – (I) Dehydrated Medium					
Colour :		White to cream			
Appearance :		Homogeneous Free Flowing powder			
(II) Rehydrated medium					
pH (post autoclaving/heating) :		6.5 ± 0.2			
Colour (post autoclaving/heating) :		Colourless			
Clarity (post autoclaving/heating) :		Clear			
(III) Q.C. Test Microbiological					
Cultural characteristics observed after 18 – 24hrs at 35-37°C (Reaction : On heating in a boiling water bath for 10 minutes after addition of Benedict's reagent)					
MICROORGANISM (ATCC)		GROWTH	REACTION		
Citrobacter freundii (8090)		good	Positive reaction, green to orange precipitate		
Escherichia coli (25922)		Fair -good	Negative reaction, blue colour of the reagent is changed		
Klebsiella pneumoniae (13883)		good	Positive reaction, green to orange precipitate		
Pseudomonas aeruginosa (10145)		good	Positive reaction, green to orange precipitate		
Precautions :	<ol style="list-style-type: none"> For Laboratory Use. 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 :	It is used for identifying bacteria that can utilize α-ketogluconate to form 2-ketogluconate.				
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
B1121	27.4 g/l	18.2 L	6.5 ± 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 BIOMARK LABORATORIES publications.

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