BIOMARK Laboratories-INDIA

www.biomarklabs.com

TECHNICAL SHEET

B1221	**MUG NUTRIENT AGAR**

Formula

Ingredients:	**gms/lit.**
Peptic digest of animal tissue	5.00
Sodium chloride	5.00
Beef extract	1.50
Yeast extract	1.50
4-Methylumbelliferyl ß-D-Glucuronide (MUG)	0.10
Agar	15.00

Final pH (at 25°C) : 7.4 ± 0.2

Directions :

Suspend 28.1 grams 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. Mix well and pour into sterile Petri plates.

Principle :

Peptic digest of animal tissue, beef extract and yeast extract provide nitrogenous compounds and vitamin B complex. MUG is cleaved by the enzyme beta-glucuronidase of E.coli to release 4-methylumbelliferone which produces visible green-blue fluorescence under long wave UV light .

QC Tests – (I)Dehydrated Medium	
Colour :	Cream to yellow
Appearance :	Homogeneous Free Flowing powder
(II)Rehydrated medium	
pH (post autoclaving/heating) :	7.4 ± 0.2
Colour (post autoclaving/heating) :	Light amber
Clarity (post autoclaving/heating) :	clear to slightly opalescent gel

(III)Q.C. Test Microbiological

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours

MICROORGANISM (ATCC)	GROWTH	Fluorescence (under UV light at 366 nm)
Escherichia coli (25922)	good-luxuriant	positive
Pseudomonas aeruginosa (27853)	good-luxuriant	negative
Staphylococcus aureus (25923)	good-luxuriant	negative
Streptococcus pyogenes (19615)	good-luxuriant	negative

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 :	It is used for detection of Escherichia coli in water and food samples by a fluorogenic procedure.
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
B1221	28.10 g/l	17.793 L	7.4 ± 0.2	NIL	121°C/15 minutes

Rev: December 2020