BIOMARK Laboratories-INDIA

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TECHNICAL SHEET

B269	**NITRATE AGAR**
Formula	
Ingredients :	**gms/lit.**
Peptic digest of animal tissue	5.00
Beef extract	3.00
Potassium nitrate	1.00
Agar	12.00
Final pH (at 25°C) :	6.8 ± 0.2

Directions :

Suspend 21 gms in 1000 ml. distilled water. Boil to dissolve the medium completely. Dispense in tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Allow to cool the tubes in slanted position.

Principles:

Beef Extract and Peptone are sources of carbon, protein and nutrients. Potassium Nitrate is a source of nitrate.Nitrate reduction is a valuable criterion for differentiating and identifying various types of bacteria. Certain bacteria reduce nitrates to nitrites only, while others are capable of further reducing nitrite to free nitrogen or ammonia. Agar is the solidifying agent.

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 amber	
	Clarity (post autoclaving/heating) :	Clear to slightly opalescent	
(III)Q.C. Test Microbiological			
	Cultural characteristics observed after	18 - 24 hrs at 35 - 37°C.	
	MICROORGANISM (ATCC)	GROWTH	NITRATE REDUCTION
	Acinetobacter calcoaceticus (19606)	Luxuriant	-
	Enterobacter aerogenes (13048)	Luxuriant	+
	Escherichia coli (25922)	Luxuriant	+
	Salmonella typhimurium (14028)	Luxuriant	+

Precautions :	1. For Laboratory Use.
	2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.
	3. IRRITANT. Irritating to eyes, respiratory system and skin. Avoid contact with skin and eyes. Do not breathe dust. Wear suitable protective clothing. Keep container tightly closed. Target organ(s) : Blood, Nerves.
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 addition of too much zinc dust may cuse a false – negative reaction or a momentary colour reaction.
	3. The nitrate test is very sensitive. An uninoculated nitrate cotrol should be tested with reagents to determine whether the medium is nitrate free and that the glassware and reagents have not been contaminated with nitrous oxide.
	4. The inoculum should not be taken from a liquid or broth suspention of the organisms.
Use :	**B269**: For detection of nitrate reducing bacteria.
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
B269	21g/l	23.80L	6.8 ± 0.2	NIL	121^0C / 15 minutes