

Nutrient Agar

Catalog : HB0109-18

Nutrient Agar is used for the cultivation of bacteria and for the enumeration of organisms in water, food, sewage, fecal, and other materials.

Approximate Formula:

Ingredients	gm/liter
Peptic digest of animal tissue	10.0
Beef extract	3.0
Sodium chloride	5.0
Agar	15.0
Final pH 7.3±0.1 at 25°C	

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 33.0g of the medium in one liter of distilled water or deionized water. Mix well and heat with frequent agitation. Dispense into triangle flasks. Sterilize in an autoclave at 121°C (15 lbs.) for 15 minutes.

Principle and Interpretation:

Peptic digest of animal tissue and beef extract provide the necessary nitrogen compounds, carbon, vitamins and also some trace ingredients necessary for the growth of bacteria. Sodium chloride maintains the osmotic equilibrium of the medium. Agar is the solidifying agent.

Appearance:

Dehydrated medium is a free-flowing yellowish powder. The prepared medium is a kind of yellowish transparent gel.

Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

Storage conditions and Shelf life:

Nutrient Agar must be stored tightly capped in the original container at 5-30°C. The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8°C.

Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 36±1°C for 24 hours.

Microorganism	Strains Number	Inoculum (CFU)	Growth	Recovery	Remarks
<i>Staphylococcus aureus</i>	ATCC 6538	10-100	luxuriant	≥70%	Yellow colonies
<i>Listeria monocytogenes</i>	ATCC 19114	10-100	luxuriant	≥70%	Colorless small colonies
<i>Escherichia coli</i>	ATCC 25922	10-100	luxuriant	≥70%	Colorless large colonies
<i>Bacillus cereus</i>	ATCC 11778	10-100	luxuriant	≥70%	White irregular colonies
<i>Bacillus subtilis</i>	ATCC 6633	10-100	luxuriant	≥70%	White irregular colonies

References:

- GB4789.28-2013 People's Republic of China food safety national standard food microbiology test medium and reagent quality requirements.
- GB/T5750.12-2006 People's Republic of China Standard examination Methods for drinking water--Microbiological parameters.