TM 341 – NUTRIENT AGAR

INTENDED USE

For cultivation of less fastidious microorganisms, can be enriched with blood or other biological fluids.

PRODUCT SUMMARY AND EXPLANATION

Nutrient media are basic culture media used for maintaining microorganisms, cultivating fastidious organisms by enriching with serum or blood and are also used for purity checking prior to biochemical or serological testing. Nutrient Agar is ideal for demonstration and teaching purposes where a more prolonged survival of cultures at ambient temperature is often required without risk of overgrowth that can occur with more nutritious substrate. It is one of the several non-selective media useful in routine cultivation of microorganisms. It can be used for the cultivation and enumeration of bacteria which are not particularly fastidious. Addition of different biological fluids such as horse or sheep blood, serum, egg yolk etc. makes it suitable for the cultivation of related fastidious organisms.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	5.000
Sodium chloride	5.000
Beef extract	1.500
Yeast extract	1.500
Agar	15.000

PRINCIPLE

The medium consists of Peptone, Beef extract and yeast extract that 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.

INSTRUCTION FOR USE

- Dissolve 28 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- If desired, the medium can be enriched with 5-10% blood or other biological fluids.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder

Appearance of prepared medium : Light yellow coloured clear to slightly opalescent gel forms in Petri plates.

pH (at 25°C) : 7.4 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Salmonella Typhi	6539	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours
Streptococcus pyogenes	19615	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours
Yersinia enterocolitica	23715	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours
Staphylococcus aureus subsp. aureus	25923	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours
Escherichia coli	25922	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours
Pseudomonas aeruginosa	27853	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours
Salmonella Enteritidis	13076	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours

PACKAGING:
In pack size of 100 gm and 500 gm bottles.

STORAGE
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES
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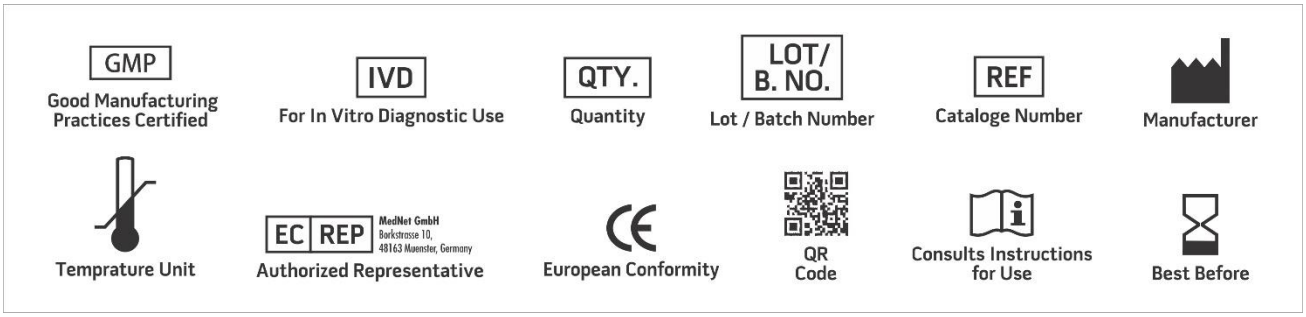
4. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
5. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
6. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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