

TM 2257 – NUTRIENT AGAR NO. 2, MODIFIED

INTENDED USE

Used as a general purpose culture media.

PRODUCT SUMMARY AND EXPLANATION

Nutrient Agar No. 2, Modified is used in Microbiological analysis of water as per the Czech Standards. It can also be used for cultivating several less fastidious microorganisms. It is a modification of Nutrient Agar, recommended as a general purpose cultivation medium, as per APHA. Nutrient Agar No. 2, Modified may be used as enriched media by the addition of 10%v/v blood or other biological fluids like ascitic fluid, serum etc.

COMPOSITION

Ingredients	Gms / Ltr		
Peptone	10.000		
Meat extract	10.000		
Agar	20.000		
Sodium chloride	5.000		

PRINCIPLE

The medium consists of Meat extract and peptone which provide the necessary nitrogen compound, carbon, vitamins and also some trace ingredients to bacteria. Sodium chloride maintains osmotic equilibrium of the medium.

INSTRUCTION FOR USE

- Dissolve 45.0 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.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder: Cream to yellow coloured homogeneous free flowing powderAppearance of prepared medium: Light yellow clear to slightly opalescent gel forms in Petri plates.

pH (at 25°C) : 7.2 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period	
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Enterobacter aerogenes	13048	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
Salmonella Typhimurium	14028	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
Escherichia coli	25922	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
Klebsiella pneumoniae	13883	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours

PACKAGING:

In pack size of 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.

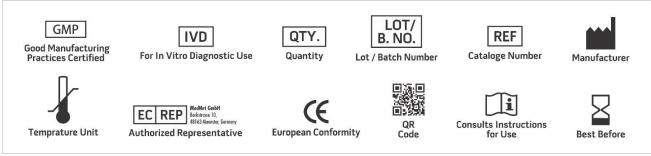
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

- 1. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
- 2. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
- 3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
- 4. 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.
- 5. 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.
- 6. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.



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















*For Lab Use Only Revision: 08 Nov., 2019









