TM 2050 – DEV NUTRIENT AGAR

INTENDED USE

For the enumeration of microorganisms in water, food and other materials.

PRODUCT SUMMARY AND EXPLANATION

DEV Nutrient Agar is a non-selective general purpose media supporting growth of wide number of microorganisms. It has almost double concentration of nitrogen sources that is used in Nutrient agar, making it more nutritious. This medium is in accordance with the German standard methods for testing water and food examination. Similar media is recommended by APHA for bacteriological examination of water and milk.

COMPOSITION

Ingredients	Gms / Ltr
Meat peptone	10.000
Meat extract	10.000
Sodium chloride	5.000
Agar	18.000

PRINCIPLE

The medium consists of peptone form meat, meat extract which provides necessary nitrogen sources, carbon, vitamins and growth factors and also trace ingredients to non-fastidious organisms. Sodium chloride maintains osmotic equilibrium of the medium. Agar acts as a solidifying agent.

With addition of blood (10% v/v) or other biological fluids like ascetic fluid, serum or other supplements to promote growth of fastidious organisms. Either surface spread technique or pour plate method may be adopted for enumeration of microorganisms from samples under test. Incubation can be done at 20±2°C or 35±1°C and observed for bacterial growth for a period of 44±4 hours.

INSTRUCTION FOR USE

- Dissolve 43 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Mix well and pour into sterile petri plates or dispense as desired.

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) : 7.2 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
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 Typhimurium	14028	50-100	Good-luxuriant	>=50%	35-37 °C	18-48 Hours
Salmonella Typhi	6539	50-100	Good-luxuriant	>=50%	35-37 °C	18-48 Hours
Klebsiella pneumoniae	13883	50-100	Good-luxuriant	>=50%	35-37 °C	18-48 Hours
Serratia marcescens	14756	50-100	Good-luxuriant	>=50%	35-37 °C	18-48 Hours
Aeromonas hydrophila	7966	50-100	Good-luxuriant	>=50%	35-37 °C	18-48 Hours
Proteus vulgaris	13315	50-100	Good-luxuriant	>=50%	35-37 °C	18-48 Hours
Staphylococcus aureus	25923	50-100	Good-luxuriant	>=50%	35-37 °C	18-48 Hours
Bacillus subtilis subsp. spizizenii	6633	50-100	Good-luxuriant	>=50%	35-37 °C	18-48 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.

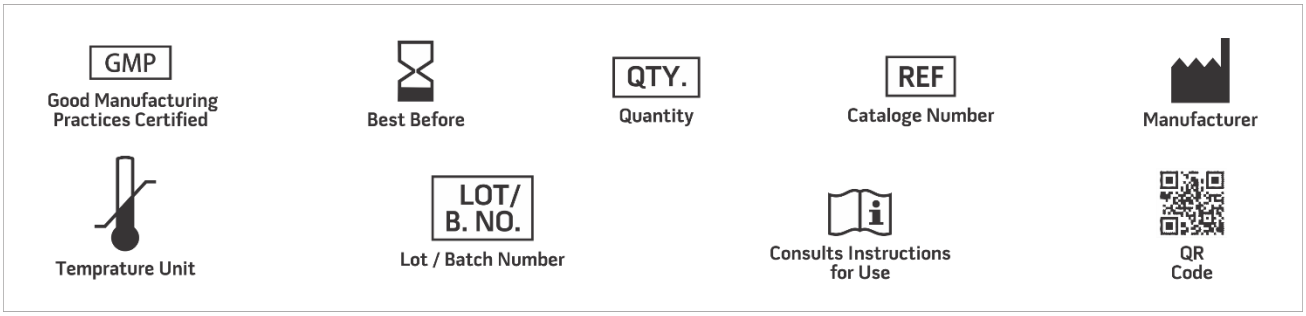
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

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. German Standard methods (Deutsche einheitsverfahren), 1990, The German Drinking water Regulations (TrinkwasserVerordnung) and the German regulation of food examination (LMBG).
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.



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

***For Lab Use Only**

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