

CM 21,297 – NUTRIENT AGAR (OXIDASE) (VEG.)

INTENDED USE

For confirmation of oxidase production by microorganisms.

PRODUCT SUMMARY AND EXPLANATION

Nutrient Agar (Oxidase)(Veg) is prepared by completely replacing animal based peptones with veg peptones. This medium is the modification of Nutrient Agar recommended by APHA for differentiation of the coliform bacteria on the basis of presence of enzyme cytochrome oxidase. Cytochrome oxidase is an iron-containing porphyrin enzyme that participates in the electron transfer mechanisms and in the nitrate metabolic pathways of some bacteria. Nutrient Veg Agar plates are streak inoculated to obtain isolated colonies. The isolated colony is used for oxidase testing on an impregnated filter paper. A dark purple colour that develops within 10 seconds is a positive oxidase test. Coliform bacteria are oxidase negative.

COMPOSITION

Ingredients	Gms / Ltr
Veg Peptone	1.000
Veg extract no.1	1.000
Agar	15.000
Sodium chloride	5.000

PRINCIPLE

The medium consists of Veg Peptone and veg extract no.1 that provide nitrogenous compounds, carbon, sulphur and trace ingredients. Sodium chloride maintains osmotic equilibrium.

INSTRUCTION FOR USE

- Dissolve 22.0 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.
- 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 : Yellow coloured clear to slightly opalescent gel forms in Petri plates.
- pH (at 25°C) : 7.3 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Oxidase	Incubation Temperature	Incubation Period
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Escherichia coli	25922	50-100	Luxuriant	$\geq 70\%$	Negative reaction	35-37°C	18-24 Hours
Enterobacter aerogenes	13048	50-100	Luxuriant	$\geq 70\%$	Negative reaction	35-37°C	18-24 Hours
Vibrio cholerae	15748	50-100	Luxuriant	$\geq 70\%$	Positive reaction, deep purple blue colour develops within 10 seconds	35-37°C	18-24 Hours
Aeromonas hydrophila	7966	50-100	Luxuriant	$\geq 70\%$	Positive reaction, deep purple blue colour develops within 10 seconds	35-37°C	18-24 Hours
Pseudomonas aeruginosa	27853	50-100	Luxuriant	$\geq 70\%$	Positive reaction, deep purple blue colour develops within 10 seconds	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.

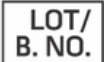
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

- Greenberg A.E., Clesceri L. S. and Eaton A. D., (Eds.), 1992, Standard Methods for the Examination of Water and Wastewater, 18th Ed., APHA, Maryland.

 Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

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

*For Lab Use Only

