

TMK 350– NUTRIENT BROTH

INTENDED USE

For general cultivation of microorganisms

PRODUCT SUMMARY AND EXPLANATION

Nutrient broth is a 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 Broth has the formula originally designed for use in the Standard Method for Examination of Water and Waste water. 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.

COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	5.000
Sodium chloride	5.000
Beef extract	1.500
Yeast extract	1.500

PRINCIPLE

Peptic digest of animal tissue, Beef extract and Yeast 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

INSTRUCTION FOR USE

1. Remove the plastic cap and disinfect the part of the rubber stopper which is now exposed.
2. Draw patient's blood with the sterile needle and syringe and transfer the blood sample immediately into the culture bottle by puncturing the rubber stopper with the needle and injecting the blood.
3. Venting may be required for aerobic culture and not in case of anaerobic cultures.
4. Incubate at 35-37°C for 18-48 hours and further for 7 days to confirm negative results.

Note: Nutrient Broth is a ready to use liquid media in glass bottle. The medium is pre-sterilized, hence sterilization is not required.

QUALITY CONTROL SPECIFICATIONS

Appearance of the medium	: Light Yellow colored, clear solution.
Quantity of Medium	: 25ml / 50ml of the medium in glass bottle
pH (at 25°C)	: 7.4 ± 0.2
Sterility Check	: Passes release criteria

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Luxuriant	35-37°C	18-48 hours
<i>Pseudomonas aeruginosa</i>	27853	50-100	Luxuriant	35-37°C	18-48 hours



<i>Salmonella typhi</i>	6539	50-100	Luxuriant	35-37°C	18-48 hours
<i>Staphylococcus aureus</i>	25923	50-100	Luxuriant	35-37°C	18-48 hours
<i>Streptococcus pyogenes</i>	19615	50-100	Luxuriant	35-37°C	18-48 hours

PACKAGING:

Aluminium capped bottles containing 25ml or 50 ml media.

STORAGE

On receipt, store bottles in the dark at 10 to 25° C. Avoid freezing and overheating. The medium may be used up to the expiration date and incubated for the recommended incubation times. Bottles from unopened packages can be used up to the expiration date. Opened bottles must be used immediately.

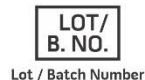
Product Deterioration: Do not use bottles if they show evidence of microbial contamination, discoloration, or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
2. 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.
3. Lapage S., Shelton J. and Mitchell T., 1970, Methods in Microbiology', Norris J. and Ribbons D., (Eds.), Vol. 3A, Academic Press, London.
4. MacFaddin J. F., 2000, Biochemical Tests for Identification of Medical Bacteria, 3rd Ed., Lippincott, Williams and Wilkins, Baltimore.
5. Marshall (ed.). 1993. Standard methods for the examination of dairy products, 16th ed. American Public Health Association, Washington, D.C.
6. U.S. Food and Drug Administration. 2001. Bacteriological analytical manual, online. AOAC International, Gaithersburg, Md.
7. Downes and Ito (ed.). 2001. Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.



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

***For Lab Use Only**

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