

Product Information

17181 Nutrient Broth pH 6.9 without NaCl

Used as general purpose medium for the cultivation of microorganisms.

Composition:

Ingredients	Grams/Litre
Peptic digest of animal tissue	5.0
Beef extract	3.0
Final pH 6.9 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Directions:

Suspend 8 g in 1 litre distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 121°C for 15 minutes.

Principle and Interpretation:

Nutrient Broth of pH 6.9, without NaCl is used as a general purpose medium for the cultivation of non-fastidious microorganisms. It has the formula originally developed for use in Standard Methods for the Examination of Water and Wastewater (1).

If 6.5% NaCl is added to the Nutrient Broth, it can be used to identify the Enterococci by determining the salt tolerance of bile esculin positive Streptococci (2). A positive bile esculin test and growth in 6.5% NaCl broth confirms the presence of Streptococci.

This Nutrient Broth with pH 6.9 and devoid of NaCl is a relatively simple formulation containing beef extract and peptic digest of animal tissue which can support the growth of non-fastidious microorganisms. If this medium is incorporated with 6.5% NaCl then it acts as a differential and selective agent by interfering with osmotic balance and the permeability of membrane of the majority of microorganisms.

Cultural characteristics after 18-48 hours at 35-37°C.

Organisms (ATCC)	Growth
<i>Enterobacter aerogenes</i> (13048)	+++
<i>Escherichia coli</i> (25922)	+++
<i>Salmonella typhi</i> (6539)	+++
<i>Staphylococcus aureus</i> (25923)	+++
<i>Staphylococcus epidermidis</i> (12228)	+++
<i>Enterococcus faecalis</i> (29212)	+++

References:

- Greenberg A. E., Trussell R. R. and Clesceri L. S. (Eds.), 1985, Standard Methods for the Examination of Water and Wastewater, 16th ed., APHA, Washington, D.C.
- MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.