

## 70116 Nutrient Agar No 2 (Nutrient Agar acc. SLMB)

General purpose medium recommended for sporulation. Recommended by the "Schweizerisches Lebensmittelbuch" Chapter 56 and Recommended by the "Schweizerisches Lebensmittelbuch" 2003 ed., chapter 56 and by the ISO Committee under the specification ISO 6597.

### Composition:

Ingredients	Grams/Litre
Peptone	5.0
Meat extract	3.0
Agar	15.0
Final pH (at 25°C)	7.0 ± 0.2

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:

Dissolve 23 g in 1 litre distilled water and adjust the pH to 7.0. Sterilize by autoclaving at 121°C for 15 minutes. For *Bacillus* strains the addition of 10 mg manganese sulfate monohydrate (63555) is recommended for sporulation.

### Principle and Interpretation:

Nutrient Agar is a basic culture medium used for maintenance or to check purity of subcultures prior to biochemical or serological tests from water (1) and Dairy (2). Recently ISO committee has recommended Nutrient Agar, pH 7.0 for the enumeration of *Salmonella* (3). This medium may be used as slants or plates for routine work with non-fastidious organisms. Wetmore and Gochenour (4) maintained cultures of *Malleomyces* and *Pseudomonas* on Nutrient Agars have relatively simple formulation which provides the necessary nutrients for the growth of many microorganisms which are not very fastidious.

Beef extract contains vitamins, organic nitrogen compounds, salts and little carbohydrates (6). Peptic digest of animal tissue provides amino acids and long chain peptides for the organisms.

Cultural characteristics after 18-24 hours at 37°C.

Organisms (ATCC)	Growth
<i>Escherichia coli</i> (25922)	+++
<i>Salmonella typhi</i> (6539)	+++
<i>Salmonella enteritidis</i> (13076)	+++
<i>Salmonella typhimurium</i> (14028)	+++
<i>Shigella flexneri</i> (12022)	+++
<i>Staphylococcus aureus</i> (25923)	+++
<i>Enterococcus faecalis</i> (29212)	+++



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## References:

1. Greenberg A. E., Trussell R. R. and Clesceri L. S. (Eds.) 1985, Standard Methods for the Examination of Water and Waste water, 16<sup>th</sup> ed., APHA, Washington D.C.
2. Standard Methods for the Examination of Dairy Products, 1978, 14<sup>th</sup> ed., APHA, Washington D.C.
3. International Organization for Standardization (ISO), 1993, Draft ISO/DIS 6597.
4. Wetmore and Gochenour, 1956, J. Bact., 72:79.
5. Greenberg and Cooper, 1960, Can. Med. Assn. J., 83:143.
6. Pelzar, Chan and Kreig, 1986, Microbiology, 5<sup>th</sup> ed., McGraw-Hill Book Company, New York.

## Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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