Technical Data Sheet

NutriSelect® plus
Anaerobic agar acc. to BREWER

Ordering number: 1.03863.0500

For the cultivation of anaerobic microorganisms from food and animal feed, water and other samples.

Mode of Action

This culture medium contains a series of reducing agents (thioglycollate, sodium sulfoxylate formaldehyde, cystine) which are the reducing reagents. Methylene blue serves as a redox indicator - its decoloration indicates anaerobiosis. Peptones and yeast extract are providing nitrogen, vitamins and amino acids and carbon sources. Glucose is the carbon source, sodium chloride maintains the osmotic balance and agar is the solidifying agent.

Typical Composition

NutriSelect® plus Anaerobic agar acc. to BREWER	
Enzymatic digest of casein	10.0 g/l
Enzymatic digest of soymeal	5.0 g/L
Yeast extract	5.0 g/l
L-Cystine	0,4 g/l
D(+)-Glucose	10.0 g/l
Sodium chloride	5.0 g/l
Sodium thioglycolate	2.0 g/l
Sodium sulfoxylate formaldehyde	1.0 /l
Methylene blue	0.002 g/l
Agar-agar*	12.6 g/l
Water	n/a
pH at 25 °C	7.5 ± 0.2

* Agar-Agar is equivalent to other different terms of agar.

Preparation

Dissolve 51.0 g in 1 liter of purified water. Heat in boiling water and agitate frequently until completely dissolved. Autoclave (15 minutes at 121 °C). Pour to plates to give thick layers.

The dehydrated medium is a powder with light brown color.

The prepared medium is clear to slightly opalescent and light green. The pH value at 25 °C is in the range of 7.0 - 7.4.

Before inoculation, allow the prepared medium to equilibrate at room temperature if it was stored at a lower temperature.

If the culture medium is intended to be used for surface plating method, there should be no visible moisture on the plates before use. When moisture is present, the plates should be dried for the minimum time required to remove visible moisture, following the procedure as described by EN ISO 11133.

Experimental Procedure and Evaluation

Depend on the purpose for which the medium is used.

Inoculate the culture medium using pour-plating or surface-plating method.

Incubate the inoculated medium at (34–38) °C for (24–48) hours under anaerobic conditions.

Storage

Store at +15 °C to +25 °C, dry and tightly closed. Do not use clumped or discolored medium. Protect from UV light (including sun light). For *in vitro* use only.

Microbiological Performance

Test method: Quantitative method (surface plate technique by spiral plater)

Test strain	Specification
Clostridium sporogenes ATCC® 219494 [WDCM 00008]	good growth
Clostridium perfringens ATCC® 13124 [WDCM 00007]	good growth
Clostridium perfringens ATCC® 12916 [WDCM 00080]	good growth

Incubation: (48 ± 4) h at (37 ± 1) °C, anaerobic.

Please refer to the actual batch related Certificate of Analysis.

Literature

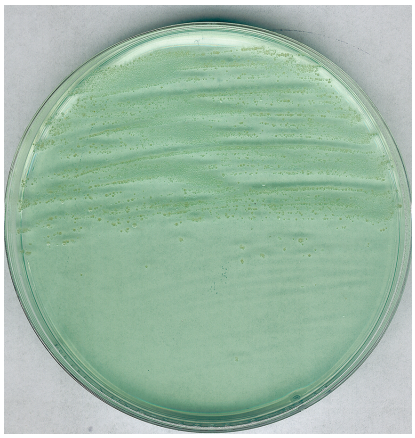
EN ISO International Standardisation Organisation. Microbiology of food, animal feed and water - Preparation, production, storage and performance testing of culture media + Amendment 1 + Amendment 2. EN ISO 11133:2014/Amd1:2018/Amd2:2020.

Aubertin, E., Aubel, E., et Genevois, L. (1928): A propos de la culture des anaérobies strict en milieu, aérobie. Compt. rend. Soc. Biol. (Paris), **98**: 957-959.

Brewer, J.H. (1940): Clear liquid medium for the "aerobic" cultivation of anaerobes. J. Amer. Med. Ass. **115**: 598-600.

Brewer, J.H. (1942): A new Petri dish and technique for use in the cultivation of anaerobes and microaerophiles. Science, **95**: 587.

Quastel, J.H. and Stephenson, M. (1926): Experiments on "strict" anaerobes: I. The relationship of *B. sporogenes* to oxygen. Biochem. J., **20**: 1125-1137.



Clostridium novyi ATCC® 1795
on Anaerobic agar acc. to BREWER

Ordering Information

Product	Cat. No.	Pack size
NutriSelect® plus Anaerobic agar acc. to BREWER	1.03863.0500	500 g