

DG-18 AGAR

Presentation

Petri dishes 90x15mm.
Flask with 100ml or 400ml.

Sterilization method

Moist heat.

Application

DG-18 agar is a selective medium used for the enumeration and isolation of xerophilic fungi in dry and semi-dry foods such as dried fruits, meat and fish products, spices, confectionery, cereals, and nuts.

Principle

DG-18 is a medium with low water activity (from approximately 0.99 to 0.95) due to the addition of glycerol. The low water activity and the addition of chloramphenicol inhibit bacterial growth. The inclusion of dichloran inhibits the rapid spread of mucoraceous fungi and reduces the size of colonies from other genera, facilitating colony counting.

How to use

Flasks: Melt the culture medium and cool to 45-50°C. Inoculate the sample onto sterile Petri dishes, following the technique established by the laboratory. Pour the previously melted and cooled culture medium onto the inoculated plates (between 15-20ml). Mix the inoculum with the culture medium by gently swirling the plates on a flat surface in a figure-eight motion. Allow the medium to cool and solidify. Incubate the plates in a bacteriological incubator for the time and temperature required by the adopted technique. After the incubation period, assess the growth.

Note: do not heat using thermal blanket or plate.

Plates: Inoculate according to the methodology used by the laboratory. Incubate for the time and temperature specified in the adopted technique.

Quality Control

Test	Result
Sterility	Absence of microbial growth
<i>Aspergillus brasiliensis</i> ATCC 16404	Good growth in white and filamentous colonies
<i>Candida albicans</i> ATCC 10231	Good growth in white and creamy colonies
<i>Escherichia coli</i> ATCC 25922	Inhibited growth
Appearance	Solid medium, light amber, opaque, free of precipitates or visible particles
pH at 25°C	5.6 ± 0.2

Results interpretation

Yeast: Creamy colonies of different colors.

Filamentous fungi: Filamentous colonies of different colors.

Precautions and special care

Avoid temperature fluctuations during storage to reduce water condensation and accumulation inside plates. It is recommended storing plates with the medium facing upwards. If necessary, discard or dry the accumulated water. Allow the product reach the room temperature before use. It is not recommended the storage using frost-free refrigerators due to the dehydrating effect of this type of equipment.

Product intended for *in vitro* diagnostic use only.

Restricted for use by professionals. Do not inhale or ingest.

Do not use the product beyond the expiration date, with signs of contamination, or if it has changed color. In the presence of contamination, the product should be immediately discarded.

Do not use the product if the packaging is damaged or tampered with.

Storage

Store between 2-15°C in a dry place and protect from light. The product maintains its performance even up to 7 days at room temperature during transportation.

Shelf-life

Plates: 90 days from the date of manufacture.

Flasks: 180 days from the date of manufacture.

Disposal of the product

After use, the product must be handled at the generating unit before environmentally appropriate final disposal, in accordance with official regulations.

Quality Guarantee

bioBoaVista guarantees the quality of its products as long as they are used according to their respective instructions and in accordance with national and international references. bioBoaVista does not take responsibility for the use of its products for purposes other than those described and approved by the company. All clinical diagnoses should be analyzed in conjunction with clinical evidence and not solely based on laboratory results.

References

1. Becton, Dickinson and Company. Difco & BBL Manual. Manual of Microbiological Culture Media, 2nd ed., 2009.
2. ISO 11133:2014. Microbiology of food, animal feed and water - Preparation, production, storage and performance testing of culture media.
3. Manual de Métodos de Análise Microbiológica de Alimentos, Livraria Varela, 3ª ed., 2007.
4. Merck Microbiology Manual. 12th ed.