Potato Dextrose Broth

Art. No. 02-483

Specification

Liquid culture medium for the maintenance and multiplication of yeast.

Formula* in g/L

Potato peptone.....4,00 (*1)
Glucose.....20,00
Final pH 5,6 ± 0,2 at 25°C
(*1) equivalent to a 200g Infusion from potatoes

* Adjusted and /or supplemented as required to meet performance criteria

Directions

Dissolve 24 g of powder in 1 L of distilled water, heating only if necessary. Distribute into suitable containers and sterilize in the autoclave at 121°C for 15 minutes.

Description

Potato Dextrose Broth is the liquid version of the agar. This broth is mainly used to detect and enumerate yeast and moulds, since it does not contain any solidifying agent it may be acidified without altering its physical properties.
At pH 3,5, bacterial growth is totally inhibited without significant influence on fungi. This acidification may be achieved by the aseptic addition of an adequate amount of organic acid to the medium after sterilization:
10-15 mL/L of a 10% sterile solution of tartaric or lactic acid. This addition may also be made before sterilization, but it must be considered that in acidic conditions Maillard reactions are strong and hence the medium may turn slightly brownish.

References

- ATLAS R.M. (1995) Handbook of Microbiological Media for the Examination of Food CRC Press. Boca Raton. Fla.
- DOWNES, F.P. & K. ITO (2001) Compendium of methods for the microbiological examination of foods. 4th ed. APHA. Washington.
- RICHARDSON, G. H. (1985) Standard Methods for the examination of dairy products 15th ed. APHA. Washington. DC.

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4°C to 30°C and <60% RH).

Quality control

Incubation temperature: 20 - 25°C
Incubation time: 48 h - 5 days
Inoculum: 10-100 CFU (Productivity) (ISO/TS 11133-1/2)

Microorganism	Growth	Remarks
Escherichia coli ATCC 8739	Good	-
Bacillus subtilis ATCC 6633	Good	-
Candida albicans ATCC 10231	Good	-
Saccharomyces cerevisiae ATCC 9763	Good	-
Aspergillus brasiliensis ATCC 16404	Good	-