



Bifidobacterium Broth

M1395

Bifidobacterium Broth is used for the cultivation of *Bifidobacterium infantis* .

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	20.000
Peptic digest of animal tissue	10.000
Yeast extract	10.000
Tomato juice, solids	16.650
Glucose	20.000
Polysorbate 80	2.000
Final pH (at 25°C)	6.8±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 78.65 grams in 1000 ml distilled water . Heat if necessary to dissolve the medium completely. Distribute in tubes or flasks as desired. Sterilize by autoclaving at 15lbs pressure for 15 minutes

Principle And Interpretation

The genus *Bifidobacterium* is the third most numerous bacterial population found in the human intestine after *Bacteroides* and *Eubacterium* . It is an anaerobic bacteria that makes up the gut microbial flora, it resides in the colon and have health benefits for their hosts. Bifidobacteria are also associated with lower incidences of allergies (1, 2). Bifidobacterium Broth is used for the cultivation and maintenance of *Bifidobacterium* species. The medium is used exclusively for the cultivation of *Bifidobacterium infantis* (3).

Casein enzymic hydrolysate, peptic digest of animal tissue and yeast extract provides essential growth nutrients. Glucose is the energy source and sodium chloride maintains isotonic conditions. Tomato juice helps in maintaining acidic pH while polysorbate 80 provides fatty acids required for metabolic activity of *Bifidobacterium* .

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Amber coloured clear solution in tubes

Reaction

Reaction of 7.86% w/v solution at 25°C. pH : 6.8±0.2

pH

6.60-7.00

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

Cultural Response

Organism	Inoculum (CFU)	Growth
Cultural Response		
<i>Bifidobacterium infantis</i> ATCC 25962	50-100	good-luxuriant
<i>Bifidobacterium bifidum</i> ATCC 15696	50-100	good-luxuriant
<i>Bifidobacterium breve</i> ATCC 50-100 15698		good-luxuriant

Storage and Shelf Life

Store below 30°C in tightly closed container and prepared medium at 2-8°C. Use before expiry date on the label.

Reference

1. Bjorksten B., Sepp E., Julge K., Voor T., and Mikelsaar M., 2001, J. Allergy Clin. Microbiol., Volume 108, Issue 4, 516-520.
2. Guarner F., and Malagelada J. R., 2003, The Lancet, Vol. 361, Issue 9356, 8 February 2003, 512-519.
3. Atlas R. M. 2004, 3rd Edi. Handbook of Microbiological Media, Parks, L. C. (Ed.), CRC Press, Boca Raton.

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