

# TM 1892 – BIFIDOBACTERIUM BROTH

### **INTENDED USE**

For the cultivation of Bifidobacterium species.

## PRODUCT SUMMARY AND EXPLANATION

The genus *Bifidobacterium* is the third most numerous bacterial population found in the human intestine after *Bacteroides* and *Eubacterium*. It is 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. *Bifidobacterium* Broth is used for the cultivation and maintenance of *Bifidobacterium* species. The medium is used exclusively for the cultivation of *Bifidobacterium infantis*.

## **COMPOSITION**

Ingredients	Gms / Ltr		
Tryptone	20.000		
Peptone	10.000		
Yeast extract	10.000		
Tomato juice, solids	16.650		
Dextrose (Glucose)	20.000		
Polysorbate 80 (Tween 80)	2.000		

## **PRINCIPLE**

Tryptone, Peptone 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*.

## **INSTRUCTION FOR USE**

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

## **QUALITY CONTROL SPECIFICATIONS**

**Appearance of Powder** : Cream to yellow homogeneous free flowing powder.

**Appearance of prepared medium** : Amber coloured clear solution in tubes.

pH (at 25°C) : 6.8±0.2

## **INTERPRETATION**

Cultural characteristics observed after incubation.

Microorganism ATCC Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
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Bifidobacterium infantis	25962	50-100	Good-luxuriant	35-37°C	24-48 Hours
Bifidobacterium bifidum	15696	50-100	Good-luxuriant	35-37°C	24-48 Hours
Bifidobacterium breve	15698	50-100	Good-luxuriant	35-37°C	24-48 Hours

### **PACKAGING:**

In pack size of 500 gm bottles.

### **STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

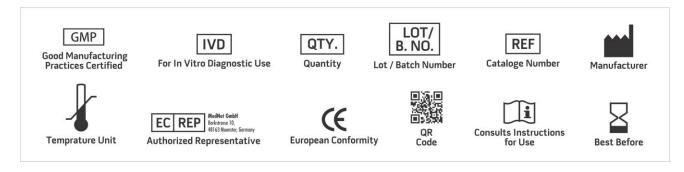
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

### **DISPOSAL**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

## **REFERENCES**

- 1. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
- 2. Atlas R. M. 2004, 3rd Edi. Handbook of Microbiological Media, Parks, L. C. (Ed.), CRC Press, Boca Raton.
- 3. Bjorksten B., Sepp E., Julge K., Voor T., and Mikelsaar M., 2001, J. Allergy Clin. Microbiol., Volume 108, Issue 4, 516-520.
- 4. Guarner F., and Malagelada J. R., 2003, The Lancet, Vol. 361, Issue 9356, 8 February 2003, 512-519.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. \*For Lab Use Only Revision: 08 Nov., 2019





