

# PRODUCT SPECIFICATION SHEET

# Bifidobacterium Broth (DM1036)

### Intended Use

Bifidobacterium Broth (DM1036) for cultivation of Bifidobacterium infantis.

### Product Summary and Explanation

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

### Principles of the Procedure

Bifidobacterium Broth contains casein enzymic hydrolysate, peptic digest of animal tissue and yeast extract which provides carbonaceous, nitrogenous substances and other essential growth nutrients. Sodium chloride maintains isotonic conditions. Tomato juice helps in maintaining acidic pH. Glucose is the carbon and energy source, while polysorbate 80 provides fatty acids required for metabolic activity of *Bifidobacterium*.

#### Formula / Liter

Ingredients	Gms / Liter	
Casein enzymic hydrolysate	20.00	
Peptic digest of animal tissue	10.00	
Yeast extract	10.00	
Tomato juice, solids	16.65	
Glucose	20.00	
Polysorbate 80	2.00	
Final pH: 6.8 ± 0.2 at 25°C		
Formula may be adjusted and/or supplemented as required to meet performance specifications		

#### Precautions

- 1. For Laboratory Use only.
- 2. IRRITANT. Irritating to eyes, respiratory system, and skin.

#### Directions

- 1. Suspend 78.65 grams of medium in one liter of distilled water.
- 2. Heat if necessary to dissolve the medium completely. Distribute in tubes or flasks as desired.
- 3. Autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle.

#### **Quality Control Specifications**

Dehydrated Appearance	Cream to yellow homogeneous free flowing powder	
Prepared Medium	Amber coloured clear solution in tubes	
Reaction of 7.86% solution	pH 6.8 <u>+</u> 0.2 at 25°C	
Gel Strength	Not Applicable	





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

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No.	Organisms	Inoculum (CFU)	Growth
1.	Bifidobacterium infantis ATCC 25962	50-100	good-luxuriant
2.	Bifidobacterium bifidum ATCC 15696	50-100	good-luxuriant
3.	Bifidobacterium breve ATCC 15698	50-100	good-luxuriant

The organisms listed are the minimum that should be used for quality control testing.

#### Test Procedure

Refer to appropriate references for standard test procedures.

#### Results

Refer to appropriate references and standard test procedures for interpretation of results.

#### Storage

Store the sealed bottle containing the dehydrated medium at 2 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light.

#### Expiration

Refer to the expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

## Limitations of the Procedure

- 1. For identification, organisms must be in pure culture. Morphological, biochemical and/or serological tests should be performed for final identification.
- 2. Consult appropriate texts for detailed information and recommended procedures.

#### Packaging

Product Name : Bifidobacterium Broth Product Code : DM1036 Available Pack sizes : 500gm

#### References

- 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.

## **Further Information**

For further information please contact your local MICROMASTER Representative.

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DM1036PSS,QAD/FR/024,Rev.00/01.01.2018

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