

TM 2111 – CHROMOGENIC BIFIDOBACTERIUM AGAR

INTENDED USE

For the differentiation of *Bifidobacterium* and *Lactobacillus* species.

PRODUCT SUMMARY AND EXPLANATION

Bifidobacterium Agar is used for the cultivation and maintenance of *Bifidobacterium* species. After *Bacteroides* and *Eubacterium* the genus *Bifidobacterium* is the third most numerous bacterial populations 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. *Bifidobacteria* are also related with lower incidences of allergies.

COMPOSITION

Ingredients	Gms / Ltr
Peptone special	23.000
Sodium chloride	5.000
Milk powder	5.000
Chromogenic mixture	10.480
Agar	16.000

PRINCIPLE

Nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and other essential growth nutrients are provided by peptone special. Osmotic balance maintained by the sodium chloride. Milk powder aids in detecting casein hydrolysis activity which is exhibited by *Bifidobacterium breve*. A halo zone is observed around the colony in case of casein hydrolysis. Chromogenic mixture's indicator system mixture helps in distinguishing between *Bifidobacterium* and *Lactobacillus* species. Green colonies with opaque zone produced by *Lactobacillus* species. *Bifidobacterium infantis* produces dark blue to bluish green colonies. Solidifying agent of the media is Agar.

INSTRUCTION FOR USE

- Dissolve 59.48 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi (121°C) for 05 minutes.
- Cool to 45-50°C. Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder
Appearance of prepared medium	: Reddish orange coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 7.2 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the colony	Incubation Temperature	Incubation Period
<i>Bifidobacterium infantis</i>	25962	50-100	good-luxuriant	>=50%	Dark blue, bluish green	35-37°C	48 Hours
<i>Bifidobacterium breve</i>	15698	50-100	good-luxuriant	>=50%	Red Pink with halo zone	35-37°C	48 Hours
<i>Lactobacillus fermentum</i>	9338	50-100	good-luxuriant	>=50%	Pink without halo zone	35-37°C	48 Hours
<i>Lactobacillus plantarum</i>	8014	50-100	good-luxuriant	>=50%	Green colonies w/hazy background	35-37°C	48 Hours

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°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. Björkstén 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.

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 QR Code	 Consults Instructions for Use	 Best Before



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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