

## Technical Information

### PNY Medium

#### Product Code: DM 1835

**Application:** - PNY Medium is recommended for isolation & cultivation of *Lactobacillus* species.

#### Composition\*\*

Ingredients	Gms / Litre
Peptic digest of animal tissue	5.000
Yeast extract	5.000
Dextrose	5.000
Monopotassium phosphate	0.500
Dipotassium phosphate	0.500
Magnesium sulphate	0.250
Manganese sulphate	0.010
Ferrous sulphate	0.010
Sodium chloride	0.010
Zinc sulphate	0.001
Copper sulphate	0.001
Cobalt sulphate	0.001
Agar	15.000
Final pH ( at 25°C)	6.0±0.2

\*\*Formula adjusted, standardized to suit performance parameters

#### Principle & Interpretation

PNY Medium is formulated for isolation and cultivation of *Lactobacillus* species. Peptic digest of animal tissue and yeast extract supply amino acids, other nitrogenous nutrients, vitamin B complex etc. Dextrose is the fermentable carbohydrate. The phosphates form buffering system while sodium chloride maintains osmotic equilibrium. Other salts supply essential nutrients for the growth of the organisms.

Lactobacilli grow in a variety of habitats, wherever high levels of soluble carbohydrate, protein background products, vitamins and a low oxygen tension occur (1). These sites include the oral cavity, the intestinal tract (2, 3), the vagina (4), food products (5) and dairy products (6).

#### Methodology

Suspend 31.28 grams of dehydrated powder media in 1000 ml distilled water. Mix thoroughly & heat to boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Shake well before pour in sterile Petri plates.

#### Quality Control

##### Appearance

Cream to yellow coloured homogeneous free flowing powder.

##### Gelling

Firm, comparable with 1.5% Agar gel.

##### Colour and Clarity

Light yellow coloured clear to slightly opalescent gel forms in Petri plates.

##### Reaction

Reaction of 3.1% w/v aqueous solution at 25°C. pH : 6.0±0.2

**pH Range**

5.80-6.20

**Cultural Response**DM 1835: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours in presence of 3-5% CO<sub>2</sub>.

Organism	Inoculum (CFU)	Growth
<i>Lactobacillus casei</i> ATCC 9595	50-100	luxuriant
<i>Lactobacillus leichmannii</i> ATCC 4797	50-100	luxuriant
<i>Lactobacillus plantarum</i> ATCC 8014	50-100	luxuriant

**Storage and Shelf Life****Dried Media:** Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label.**Prepared Media:** 2-8° in sealable plastic bags for 2-5 days.**Further Reading**

1. Balows A., Truper H. G., Dworkin M., Harder W., Schleifer K. H., (Eds.), The Prokaryotes, 2nd Ed, 1992, Springer-Verlag
2. Wiseman R. F, Sarles W. B, Benton D. A, Harper A. E and Elvehjem C.A., 1956, J. Bacteriol., 72:723.
3. Ellis R. F. and Sarles W. B., 1958, J. Bacteriol., 75:272.
4. Rogosa M. and Sharpe M. E., 1960, J. Gen. Microbiol., 23:197
5. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., American Public Health Association, Washington, D.C.
6. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.

**Disclaimer :**

- User must ensure suitability of the product(s) in their application prior to use.
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