

TM 2379 – TOMATO JUICE MEDIUM BASE

INTENDED USE

For isolation and identification of Lactobacilli encountered in wine.

PRODUCT SUMMARY AND EXPLANATION

Wine may also be made from fruit and fruit juices. Mickle and Breed first described the use of tomato juice in the culture media for Lactobacilli. Tomato Juice Medium Base is the modification of the medium devised by Yoshizumi, used for isolation of the slow growing Lactobacilli from wines. These Lactobacilli take part in the malolactic fermentation and spoilage. Ability of tomato juice to enhance the recovery of Lactobacilli was observed by Kulp.

COMPOSITION

Ingredients	Gms / Ltr
Peptone, special	5.000
Yeast extract	5.000
Dextrose	10.000
Monopotassium phosphate	0.500
Potassium chloride	0.125
Calcium chloride	0.125
Sodium chloride	0.125
Magnesium sulphate	0.125
Manganese sulphate	0.003
Bromo cresol green	0.030
Tomato juice solids, from	150.000
Agar	15.000

PRINCIPLE

Tomato juice acts as a source of carbon, nutrients and proteins. Peptone special and yeast extract provide nitrogenous compounds and amino acids which stimulate the growth of spoilage strains. Low pH of the medium encourages growth of Lactobacilli while inhibiting the growth of accompanying bacteria. Bromocresol green acts as an inhibitory dye. Cycloheximide and sorbic acid act as fungistats, inhibiting the growth of yeasts. Monopotassium phosphate buffers the medium. Magnesium sulphate, manganese sulphate and potassium chloride provide inorganic ions. Sodium chloride maintains osmotic balance in the medium.

INSTRUCTION FOR USE

- Dissolve 20 grams in 500 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Aseptically add the rehydrated contents of one vial of Lactobacilli Supplement, or Sorbic acid (1.2g/l).
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS



Appearance of Powder : Cream to light green homogeneous free flowing powder.
Appearance of prepared medium : Bluish green coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 5.0±0.2

INTERPRETATION

Cultural characteristics observed after incubation with added one vial of Lactobacilli Supplement.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Lactobacillus bulgaricus</i>	11842	50-100	Luxuriant	>=70%	35-37°C	18-48 Hours
<i>Lactobacillus casei</i>	7469	50-100	Luxuriant	>=70%	35-37°C	18-48 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. Alcamo I. E., 2001, Fundamentals of Microbiology, 6th Ed., Jones and Bartlett Publishers
2. Mickle and Breed, 1925, Technical Bulletin 110, NY State Agricultural Exp. Station.
3. Carr J. G., Cutting C. V. and Whiting G. C., (Eds.), 1975, Lactic Acid Bacteria and Food, Academic Press London, UK, pp. 87-102.
4. Kulp J. W. L., 1927, Science 66:512.
5. Chalfan Y., Goldberry I. and Moteles R. I., 1977, J. Food Sci., Vol. 42. p: 939.
6. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification- Maintenance of Medical Bacteria, Vol. 1, Williams & Wilkins, Baltimore, Md.

 GMP Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	



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

***For Lab Use Only**
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