# 41782 MRS Agar, Vegitone (Vegitone MRS Agar)

This MRS Agar is free of animal derived material. It is recommended for the isolation and cultivation of *Lactobacillus* species.

**Composition:**

| Ingredients | Grams/Litre |
|---|---|
| Dextrose | 20.0 |
| Proteose Peptone (vegetable) | 10.0 |
| Yeast extract | 5.0 |
| Sodium acetate | 5.0 |
| 2-Phenylethyl alcohol | 3.0 |
| Ammonium citrate | 2.0 |
| Dipotassium phosphate | 2.0 |
| Magnesium sulphate | 0.1 |
| Manganese sulphate | 0.05 |
| Bromo cresol green | 0.04 |
| Captan | 0.004 |
| Agar | 15.0 |
| Final pH 5.5 +/- 0.2 at 25°C | |

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Appearance: Yellow coloured, homogeneous, free flowing powder.
Gelling: Firm, comparable with 1.5% Agar gel.
Colour and Clarity: Green coloured, clear to slightly opalescent gel / solution forms in petri plates / tubes.

**Directions:**
Suspend 62.2 g in 1000 ml distilled water containing 1 ml polysorbate 80 (TWEEN® 80; Cat. No. P8074). Boil to dissolve the medium completely and mix thoroughly. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. If necessary, adjust the pH with glacial acetic acid after sterilization.

**Principle and Interpretation:**
MRS Media are the modification of MRS medium of deMan et al (1) recommended among others for isolation and cultivation of Lactobacilli causing spoilage of salad dressings (2, 3).
Proteose Peptone (vegetable) and dextrose supply nitrogen, carbon and other elements essential for the growth of Lactobacilli. Polysorbate 80 a mixture of oleic esters, supplies fatty acids required by Lactobacilli. Ammonium citrate, sodium acetate, 2-phenylethyl alcohol and Captan inhibit gram-negative organisms, moulds and certain gram-positive bacteria. Certain yeasts are suppressed because of presence of Captan.

Cultural characteristics after up to 3 days at 35°C with 5-10% $CO_2$

| Organisms (ATCC) | Growth |
|---|---|
| *Lactobacillus plantarum* (8014) | +++ |
| *Lactobacillus fermentum* (9338) | +++ |
| *Lactobacillus acidophilus* (4356) | +++ |

References:
1. J.C. deMan, M. Rogosa, M.E. Sharpe, Appl. Bact. 23, 130-135 (1960)
2. C. Vanderzant, D. Splittstoesser (Eds.), Compendium of Methods for the Microbiological Examination of Foods, 3rd ed., APHA, Washington, D.C. (1992)
3. R.B. Smittle, R.M. Flowers, J. Food Protection, 45, 977 (1982)



**Precautions and Disclaimer**
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.