

# **TM 1359 – J. AGAR BASE**

#### **INTENDED USE**

For cultivation of Bacillus and Sporolactobacillus species.

### **COMPOSITION**

Ingredients	Gms / Ltr		
Agar	20.00		
Yeast extract	15.00		
Pancreatic digest of casein	5.00		
Dipotassium hydrogen phosphate	3.00		

#### **PRINCIPLE**

J. AGAR BASE is used for cultivation of Bacillus and Sporolactobacillus species. These genera are the most abundant in probiotic-containing food products. Lactobacillus sporogenes (Bacillus coagulans) and other lactic acid bacteria are commonly used in diet and health supplements that claim to promote intestinal flora. Lactobacillus sporogenes is approved by both the U.S. and European Union for use on livestock. Lactobacillus sporogenes is considered generally recognized as safe (GRAS) by the U.S. FDA. The European Food Safety Authority (EFSA) has also included it on their Qualified Presumption of Safety (QPS) list, due to its reported safety. J. Agar base consists of Yeast extract and Pancreatic digest of casein as source of nitrogen, sulphur, vitamin B complex and trace elements essential for microbial growth. Glucose serves are carbon source. Dipotassium hydrogen phosphate provides buffering and agar is a gelling agent.

# **INSTRUCTION FOR USE**

- Dissolve 43.00 gms in 9900ml distilled water.
- Gently heat to boiling with gentle swirling and dissolve the medium completely.
- Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
- Cool to 45 50°C and aseptically add 10 ml sterile glucose solution (20% w/v).
- Mix well and pour into sterile Petri plates.

# **QUALITY CONTROL SPECIFICATIONS**

**Appearance of Powder** : Light-Yellow colour, clear solution

: Light yellow coloured very slightly opalescent, viscous solution. Appearance of prepared medium

: 7.4±0.2 pH (at 25°C)

### **INTERPRETATION**

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Bacillus coagulans	7050	10 <sup>3</sup>	Luxuriant	35 - 37º C	18 – 48 hour









Lactobacillus casei	9595	10 <sup>3</sup>	Luxuriant	35 - 37º C	18 – 48 hour
Lactobacillus fermentum	9338	10 <sup>3</sup>	Luxuriant	35 - 37º C	18 – 48 hour
Bacillus subtilis	6633	10 <sup>3</sup>	Luxuriant	35 - 37º C	18 – 48 hour

### **PACKAGING:**

In pack size of 500 gm bottles.

### **STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 10-25°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.

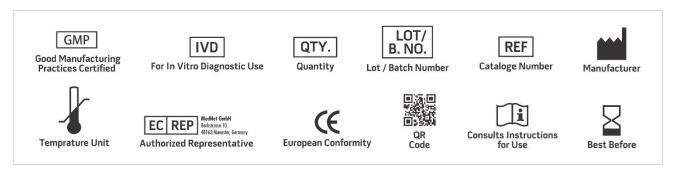
**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

#### **DISPOSAL**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

# **REFERENCES**

- 1. Sanders, M.E., Morelli, L., Tompkins, T.A. 2003. Comprehensive Reviews in Food Science and Food Safety. 2: 101.
- 2. Food and Agriculture Organization/World Health Organization. 2001. Report of a Joint FAO/WHO Expert Consultation on Evaluation of Health and Nutritional Properties of Probiotics in Food Including Powder Milk with Live Lactic Acid Bacteria.
- 3. EFSA. 2008. European Food Safety Authority. Technical guidance prepared by the Panel on Additives and Products or Substances used in Animal Feed (FEEDAP) on the update of the criteria used in the assessment of bacterial resistance to antibiotics of human or veterinary importance. The EFSA Journal 732:1-15.



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

\*For Lab Use Only

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