TM 2030 – CARROT AGAR

INTENDED USE

For sporangial production and study of mating techniques of *Phytophthora* spp.

PRODUCT SUMMARY AND EXPLANATION

Carrot Agar is widely used in mycological research. Different combinations of carrot and agar are known to support proliferation and sporulation of plant pathogens. It can also be used to enhance sporulation of a variety of fungi such as *Alternaria, Cercospora*, and *Thielaviopsis*. This medium has been recommended for studies determining mating type of *Phytophthora ramorum* isolates by mycelial mixing. Different isolates under study can be subcultured onto this medium until mycelial growth is seen but with no chlamydospores. Such isolates can be grown or subcultured to carry out mating studies at room temeparture (20-30°C) for 3 days as per standard protocol.

COMPOSITION

Ingredients	Gms / Ltr
Carrot, infusion from	200.000
Agar	15.000

PRINCIPLE

Carrot provides the natural nutritional contents required by fungi. It has necessary nutrients, minerals and vitamins which limits the growth of organisms, providing an environment only for the existence rather than their growth. Agar acts as a solidifying agent.

INSTRUCTION FOR USE

- Dissolve 19 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Mix well and pour into sterile Petri plates. Also if desired the medium can be allowed to stand and solidify overnight.
- It can be reautoclaved again for 10 minutes and poured in 10 ml quantity to prepare thin carrot agar for mating studies.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Yellow coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 6.5±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period

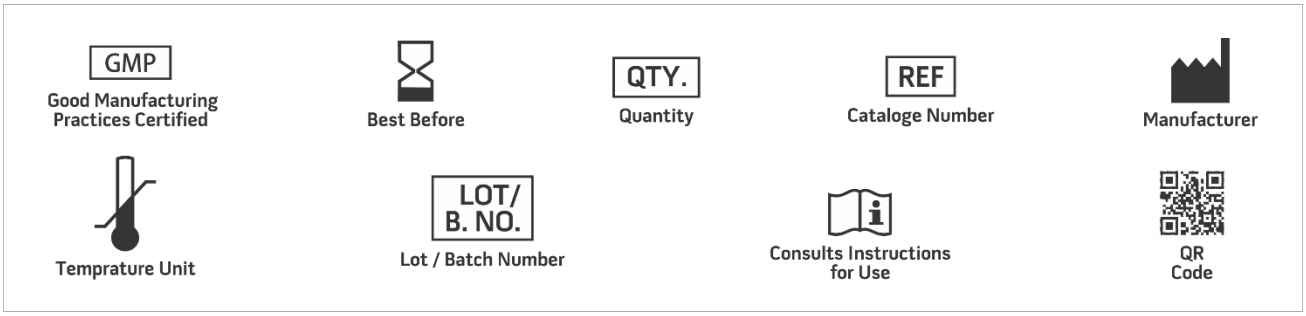
Aspergillus brasiliensis	16404	10-100	Good	40-50%	20-25°C	48-72 Hours
Phytophthora ramorum	-	10-100	Good	40-50%	20-25°C	48-72 Hours

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. Brasier CM &Kirk SA,2004) Production of gametangia by Phytophthora ramorum in vitro. Mycological Research 108: 823-827.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
4. Leslie, J.F. and Summerell, B.A. 2006. The Fusarium Laboratory Manual. Blackwell Publishing Ames, IA p. 12-13.
5. Protocols for Susceptibility testing Protocol 9: Determination of Mating Type of Phytophthora ramorum Isolates by Mycelial Mixing.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
***For Lab Use Only**
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