



## Product Information Sheet

# A111 Agar, Plant TC Micropropagation Grade - Gracilaria

Synonym: Agar-Agar, Gum Agar  
CAS: 9002-18-0

### Properties

Form: Powder  
Appearance: Off-white to Cream  
Application: Gelling Agent  
Solubility: Partially Soluble in Cold Water; Soluble in Boiling Water  
Typical Working Concentration: 6 to 10 grams per liter  
Storage Temp: Room Temperature  
Other Notes: Gel Strength:  $\geq 900$  g/cm<sup>2</sup>  
Ash Content: <6%  
Plant Tissue Culture Tested

### Application Notes

Agar is produced from a family of red seaweeds (*Rhodophyceae*) primarily from two genera, *Gelidium* and *Gracilaria*. It is a mixture of agarose and agarpectin. Product A111 is produced from *Gracilaria* which has lower gel strength than those from *Gelidium*. However, in the 1950's it was discovered that pre-treatment of the seaweed with alkali before extraction lowered the yield but gave an agar with higher gel strength.<sup>2</sup>

Agar is by far the most common gelling agent used in plant tissue culture. It is used at a wide range of concentrations from 6 g/L for a slightly firm gel to 10 g/L for a brick-like gel; however, 6-8 g/L is the more commonly used range.

PhytoTechnology Laboratories® also carries agar produced from *Gelidium*, Product No. [A296](#), as well as high purity grade agar, Product No. [A175](#).

Please Note: While PhytoTechnology Laboratories® tests each lot of this product with two or more plant cell/ tissue culture lines, it is the sole responsibility of the purchaser to determine the appropriateness of this product for the specific plants that are being cultured and applications that are being used.

### References

1. Merck **13**, 184
2. McHugh, D.J. (2003). A guide to the seaweed industry. FAO Fisheries Technical Paper 441, Food and Agriculture Organization of the United Nations, Rome.

### PhytoTechnology Laboratories®

P.O. Box 12205 • Shawnee Mission, KS • 66282-2205

Phone: 1-913-341-5343 or 1-888-749-8682 (U.S. Only) Fax: 1-913-341-5442 or 1-888-449-8682 (U.S. Only)

Web Site: [www.phytotechlab.com](http://www.phytotechlab.com)

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