



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: ≥ 900 g/cm²
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 agaropectin. Product A111 is produced from *Gracilaria* which has higher 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.²

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.

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