PhytoTechnology Laboratories®



Helping to Build a Better Tomorrow through Plant Science™

Product Information Sheet

G3500 Gelling Agent Sample Pack

Sample Pack Contents:

A111- Tissue Culture Grade Agar: 9g

A175- Purified Agar: 8g
A133- Agargellan™: 5g
C2000- Carrageenan: 10 g
G3251- Gelzan™: 2g

Details:

- A111- Tissue Culture Grade Agar: The most common gelling agent used in plant tissue culture. Gel Strength: ≥900 (typically 900-1100) g/cm². In plant tissue culture it is typically used at concentrations from 6-8 g/L for a slightly firm to a densely firm gel. It is derived from red seaweeds in the genus Gracilaria. The pH of the medium must be greater than pH 5.2 for it to gel.
- A175- Purified Agar: A higher clarity, more pure agar compared to A111, and produced from an alternative seaweed genus in *Gelidium*. It typically has a slightly lower gel Strength: 700-1100 g/cm², compared to A111. Similar to A111, it is used at 6-8 g/L in plant tissue culture media and the pH must be greater than 5.2 for it to gel.
- <u>C2000</u>- Carrageenan: Very high clarity gelling agent (relative to A175) also produced from seaweed, typically used at 6 to 10 g/L in plant tissue culture. It should be added last and slowly to the stirring medium to help prevent clumping so that it dissolves uniformly during autoclaving.
- G3251- Gelzan™: A purified gellan gum produced from bacterial fermentation. It is also the highest clarity gelling agent we sell. It is very similar to Gelrite (which is no longer produced) except that it has a slightly lower gelling strength. It is typically used at a concentration of 2-4 g/L for tissue culture. Gelzan™ is a trademarked product of CP Kelco. Not recommended for use with media with extremely low or high calcium content media (e.g. Schenk & Hildebrandt, 1/2X MS, DKW, or Quoirin & Lepoivre), as gelling ability will be affected.
- A133- Agargellan™: A proprietary blend of agar and gellan gum. Though to a lesser extent than gellan gums in general, it is not recommended for use with media with extremely low or high calcium content media (e.g. Schenk & Hildebrandt, 1/2X MS, DKW, or Quoirin & Lepoivre), as gelling ability will be affected. It is typically used at a concentration of 3.5 5.0 g/L for tissue culture.

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