

## Directions For Use: Gellan Gum

### 1. Product Summary

Gellan gum is a water-soluble anionic polysaccharide that is structurally composed of a repeating unit of tetrasaccharides. The concentration range of Gellan gum used in tissue culture media is 0.2-0.4%. Gellan gums are best to observe the growth of cultured plants (especially roots) because of their high transparency. Gellan gums are insoluble in cold water and have to be heated at 90 °C or higher to dissolve it. PCT Gellan gum is a supreme tissue culture grade gellan gum suitable for culturing the explants in the lab environment. You can find powder form gellan gum in bottles of different sizes, customized according to culturists' use, in the PCT store. The available sizes of Gellan gum in the PCT store include bottles of 100 grams, 500 grams, and 1 Kg.

#### 2. Procedure

#### **Materials Required:**

- a. 1000 ml Distilled water
- b. 4.54 g of MS Media
- c. 2-4 g of Gellan Gum
- d. 30 grams of Sugar
- e. 2 ml of PPM

#### **Directions:**

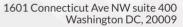
- 1. Take a beaker/pitcher and add 800 ml water to it.
- 2. Add 4.54 g of MS media, 30 grams of sugar, 2-4 grams of gellan gum, and 2 ml of PPM (Plant Preservative Mixture-to avoid any kind of contamination from your cultures).
- 3. Then fill up the pitcher with 200 ml of water (to make up the volume to 1000ml or 1L).
- 4. Pour 50 ml into each 250 ml flask and place the lids.
- 5. Place all containers in a pressure cooker and sterilize them for 20 minutes at 15 psi.
- 6. After sterilization, remove the containers and keep them for cooling.
- 7. Then, culture your explants in the containers containing media and gellan gum. Soon after carefully culturing your plants, providing proper hormones and culture conditions, and proper acclimatization of plants, you will have beautiful plants.

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## 3. Disposal Information

Gellan gum can be discarded in normal trash cans after use, but if it contains any biohazardous additives or compounds then it should be sterilized before disposal.







