

## Vancomycin 100 mg/ml EZ-Pak™ Protocol

### Introduction

Vancomycin hydrochloride is a member of the glycopeptide antibiotic class derived from *Streptomyces orientalis*. It is effective against gram-positive bacteria and used in studies of antibiotic resistance bacteria and nanoparticle transport studies. Exhibiting low toxicity to plants, vancomycin is suitable for plant selection and prevention of bacterial contamination in plant cell culture applications. Vancomycin functions by inhibiting bacterial cell wall synthesis. It prevents transfer and addition of muramylpentapeptides that make up the peptidoglycan cell wall. It may be combined with cefotaxime or carbenicillin to display a synergistic effect against *Agrobacterium* species.

The vancomycin hydrochloride EZ Pak™ is the fastest and easiest way to make a set amount of sterile vancomycin hydrochloride solution. The kit includes pre-weighed vancomycin hydrochloride powder, a sterile filter, and a sterile container for the filtered solution. No need to calculate, simply add the stated amount of deionized H<sub>2</sub>O, filter, and pour into the labeled bottle for easy usage. The EZ Pak™ includes high-quality GoldBio Vancomycin hydrochloride and the sterile solution is ready for tissue culture, bacterial media, or any number of uses.

### Materials

- 1 Bottle of Vancomycin powder
- 1 Sterile empty bottle for solution
- 1 Sterile Filter

### Method

#### Reconstitution

1. Warm Vancomycin powder bottle to Room Temperature.
2. Add specified volume of dH<sub>2</sub>O to Vancomycin powder bottle.

Product Catalog #	Volume of H <sub>2</sub> O to Add	Final Volume
<a href="#">V-200-EZ25</a>	23.0 ml	25 ml
<a href="#">V-200-EZ50</a>	46.0 ml	50 ml
<a href="#">V-200-EZ100</a>	92.0 ml	100 ml

3. Mix until all product goes into solution.
4. Sterile Filter:
  - a. For V-200-EZ25, EZ50 and EZ100
    - i. Remove vacuum filter from packaging.
    - ii. Attach vacuum hose according to instructions on filter packaging.
    - iii. Add solution to the upper cup of the filter.
    - iv. Apply vacuum pressure and let all the solution in the top cup flow through the filter into the bottom cup. Stop vacuum when all solution is filtered.
    - v. Remove vacuum attachment from the filter and close the bottle with provided sterile cap.
    - vi. Tightly seal the solution bottle and store at -20°C. Make aliquots if desired. Discard filter.
5. Use Vancomycin at a final concentration of 100 µg/ml.