

# General Freeze Dry Application for Snake Venom and Other Small Volume Samples of 0.4 ml or Less

**Principle:** Lyophilization allows a sample to retain its toxic and enzymatic effects.

## Equipment

- 2.5 L freeze dryer (700201000 ) or other collector capacity
- Port type drying chamber
- 600 ml flask and adapter
- Freezer
- Millipore MC Filter
- Pipetman P-5000 Gilson

## Procedure

### Sample Preparation

1. Filter the venom using a 0.2 ul ultra free MC filter
2. Centrifuge the sample in a microfuge for three minutes at 2000 g
3. Discard the filter cup and plug the top of the collection tube with a cigarette-type filter used in the Pipetman P-5000 pipette. This prevents the sample from escaping during lyophilization
4. Start the lyophilizer and establish operating parameters
5. Flash freeze the sample by dipping the collection tube into liquid nitrogen for about one minute. Immediately put the tube in a small freeze drying flask and place on the lyophilizer
6. Lyophilize for at least two hours or until the individual tubes are at room temperature
7. After freeze drying, cap the samples for storage at -20° C over a desiccant for future uses, or reconstitute to a set toxic level
8. Inject the reconstituted samples into rabbits for antibody production



## Reference

University of Oklahoma

*This method is for reference only. It is not a citable document. It is based on data we believe is reliable. It is offered in good faith but without guarantee.*

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