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Cleaning and sterilizing Droso-Plugs for *Drosophila* maintenance

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We use this protocol and it's working

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Abstract

Genesee Scientific's Droso-Plugs provide a reusable, washable, and autoclavable solution for sealing *Drosophila* vials. This protocol outlines our lab's procedure for cleaning and sterilizing Droso-Plugs. While these plugs can be reused multiple times, we have observed that they may shrink with repeated cleanings and autoclaving cycles. Therefore, we recommend using each plug only twice before disposal.

Materials

Materials

-  Droso-Plugs, narrow vials **Genesee Scientific Catalog #59-200**
- [M] 1 % (v/v) Liquinox from  Liquinox Biodegradable Cleaning Compound **Thomas Scientific Catalog #2902N20** in diH₂O.
-  Autoclave Bags, 2 to 3 gal. **Fisher Scientific Catalog #01-826-5**
-  Autoclave Tape **Fisher Scientific Catalog #15-901-111**

Equipment

- Autoclave (any)
- Autoclave bin (any)
- Drying rack (any)
- Pitcher, plastic (any)
- Sink (any)



Protocol materials

✕ Droso-Plugs, narrow vials **Genesee Scientific Catalog #59-200**

✕ Autoclave Bags, 2 to 3 gal. **Fisher Scientific Catalog #01-826-5**

✕ Autoclave Tape **Fisher Scientific Catalog #15-901-111**

✕ Liquinox Biodegradable Cleaning Compound **Thomas Scientific Catalog #2902N20**

Safety warnings

- ⚠ This protocol involves the use of various chemicals and reagents that require careful handling and strict adherence to safety guidelines to ensure safe laboratory practices. Please review the Material Safety Data Sheets (MSDS) for each reagent before beginning the protocol and take appropriate precautions. All steps should be performed while wearing gloves, a lab coat, and eye protection.

Before start

1. Freeze soiled Droso-Plugs at -20 °C Overnight or longer.
2. Thaw Droso-Plugs.

Cleaning Droso-Plugs

33m

- 1 Plug the drain of the lab sink. 1m
- 2 Transfer dirty  Droso-Plugs, narrow vials **Genesee Scientific Catalog #59-200** into the sink. 1m
- 3 Fill the sink with warm tap water. 1m
Generously squirt **[M] 1 % (v/v)** Liquinox into the water as the sink fills.



- 4 Soak the Droso-Plugs for  00:30:00 . 30m



Wash Droso-Plugs

16h 28m

- 5 Gently rub away dirt and debris from the Droso-Plugs by hand. 5m
- 6 Unplug the sink and allow to drain.
While draining, rinse off any leftover dirt or debris from the plugs by hand. 5m



- 7 Plug the drain of the lab sink and fill with warm tap water.
- 8 Unplug the sink and allow to drain.
Gently squeeze the Drosophila-Plugs to remove excess tap water.

4m

5m



- 9 Place Drosophila-Plugs in a pitcher and fill with dH_2O to rinse off tap water.

4m



- 10 Squeeze excess dH_2O from Drosophila-Plugs and place in a single layer on a drying rack.

5m



11 Allow Droso-Plugs to dry  Overnight .

16h





Autoclave Drosophila-Plugs

33m

- 12 Place clean and dry Drosophila-Plugs in
 Autoclave Bags, 2 to 3 gal. **Fisher Scientific Catalog #01-826-5** .
Add a strip of  Autoclave Tape **Fisher Scientific Catalog #15-901-111** to the bag.
- 13 Place the autoclave bag filled with Drosophila-Plugs in an autoclave-safe pan or dish.

2m

1m





Safety information

Keep the neck of the autoclave bag open for steam release.
Failure to do so will cause the bag to explode.

- 14 Autoclave the Drosophila-plugs on a liquid cycle.

30m





Note

The manufacturer recommended autoclave settings are  00:15:00 at  121 °C and  15 psi .

Dry Drosophila-Plugs

16h 1m

- 15 Remove bag from the autoclave and lay flat on lab bench surface with neck of bag open for the Drosophila-Plugs to dry  Overnight .

16h





- 16 Once plugs are dry, tie the top of the bag and label the bag with the date and your initials.

1m

