Saprolegnia

Species: *ferax*
Genus: *Saprolegnia*
Family: Saprolegniaceae
Order: Saprolegniales
Class: Oomycetes
Phylum: Heterokontophyta
Kingdom: Chromalveolata

Conditions for Customer Ownership

We are a USDA compliant facility and hold all necessary permits to transport our organisms. Each state is assisted by the USDA to determine which organisms can be transported across state lines. Some organisms may require end-user permits. Please contact your local regulatory authorities with questions or concerns. To access permit conditions, click here.

Never purchase living specimens without having a disposition strategy in place. Live specimens should not be released into the wild! Please dispose of any unwanted organisms using the guidelines below.

Primary Hazard Considerations

Always wash your hands thoroughly after you handle this organism.

Availability

Saprolegnia ferax is cultured in our labs and is generally available year-round.

How Will Animals Arrive and Immediate Requirements:

- *Saprolegnia* will arrive in a glass culture tube with media and a sterile vegetable seed. Upon arrival, the lid on the tube should be loosened to allow for gas exchange.
- We over-pack each order of *Saprolegnia*. It is normal to have some deceased *Saprolegnia* in the tube. You will receive at least the quantity of live *Saprolegnia* stated on the tube.

Care:

- *Saprolegnia* is cultured in sterile water on a sterile seed. Corn seed (470030-234) works well, but cucumber or another vegetable seed can be used as well.
- *Saprolegnia* will remain alive in the tube for about 3 weeks at room temperature (65–80°F). After 3 weeks you will need to subculture into new media.
- For simple subculturing, transfer the seed with *Saprolegnia* from the original tube to a new sterile tube with sterile water and a sterile seed.

Information

Method of reproduction:

- *Saprolegnia* has a complex life cycle, which includes both sexual and asexual reproduction.
- The asexual spore of *Saprolegnia* releases motile short-living primary zoospores. Primary zoospores are active only for a few minutes before they encyst, germinate, and release secondary zoospores. The secondary zoospores are considered the main dispersal phase of *Saprolegnia*. The repeated cycle of releasing the secondary zoospores allows *Saprolegnia* to locate a suitable host or food source. Once a food source is located, the hair surrounding the spore will lock in place onto the substrate and sexual reproduction will start.
- Sexual reproduction of *Saprolegnia* occurs by direct injection of the male sperm nuclei from the antheridium into the eggs contained in the oogonium. The eggs and sperms are the product of meiosis and are the only haploid stage in the life cycle. This type of sexual reproduction is referred to as gametangial copulation.

Wild Habitat

Saprolegnia, or water mold, is a fungus that can be found on live or decaying plant and animal material in freshwater systems worldwide. Species of *Saprolegnia* are able to infect insects, reptiles, fish, larval amphibians, and the eggs of fish and amphibians. *Saprolegnia* commonly feeds on dead organic matter. They are also opportunistic parasites that can affect stressed or diseased fish.

Disposition

We do not recommend releasing any laboratory organism into the wild, and especially not organisms that are not native to the environment.

- **When finished with your *Saprolegnia* please dispose of it in one of the following ways:**
- Use a 20% bleach solution for 10 minutes (make sure the culture does not open until it is submerged in solution in order to the organisms are not released into the environment).
- Place the organism in 70% isopropyl alcohol for 24 hours (make sure the culture does not open until it is submerged in solution in order to the organisms are not released into the environment).
- Autoclave the organism @ 121°C for 15 minutes in an autoclavable bag. The Petri dish it is contained in will melt in an autoclave, so be sure to bag your organism and close securely before autoclaving.

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