Rotifers

Classes: Monogononta, Bdelloidea, and Seisonidea
Phylum: Rotifera
Kingdom: Animalia

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

Wash your hands thoroughly after handling.

Availability

Available year round, rotifers are lab cultured. You will receive a jar or test tube of water-based medium containing rotifers. We over-pack each order of rotifers. It is normal to have some deceased rotifers in the container. You will receive at least the quantity of live rotifers stated on the container. Once received, loosen the lid to provide oxygen, and keep at room temperature, away from direct sunlight and windows. Rotifers are invertebrate animals and range in size from 0.1–0.5 mm long. Rotifers will last about two months, in either dark or light, and a dense population should be achieved within a few weeks.

Care

Rotifers can be subcultured into test tubes, culture dishes, flasks, or culture jars. Using Hay medium (either hay medium ready-to-use solution 470177-390 or hay medium concentrate 470180-766) in addition to wheat seeds (470049-966), add about 40–50 rotifers to the culturing solution. Keep the culture at room temperature and within 4–7 days, you will have a vibrant culture of rotifers. Subculturing should be performed every 3–4 weeks to sustain your culture.

Information

Methods of reproduction and life cycles: Primarily parthenogenesis, sometimes sexual. Parthenogenesis results in clonal offspring which are genetically identical to the parent. Individuals of some species (class monogononta) form two distinct types of parthenogenetic eggs; one type develops into a normal parthenogenetic female, while the other occurs in response to inhospitable environmental changes and develops into a degenerate male that lacks a digestive system, but does have a complete male reproductive system that is used to inseminate females thereby producing fertilized "resting eggs." Resting eggs develop into zygotes that are able to survive extreme environmental conditions such as may occur during winter or when the pond dries up. These eggs resume development and produce a new female generation when conditions improve again. The life span of monogonont females varies from a couple of days to about three weeks.

Wild Habitat

There are over 2,000 species of rotifers that may be found in many bodies of freshwater all over the world, including damp soil and mosses. Several species live in saltwater, usually among plants but sometimes between grains of sand on beaches.They are mostly omnivorous and feed on decomposing matter, green algae, bacteria, and diatoms, but some can be cannibalistic. Rotifers may be free swimming, or may move as an inchworm along substrate, and some may be sessile.

Disposition

Please dispose of excess living material in a manner to prevent spread into the environment. Consult with your school to identify their preferred method of disposal. **You can safely use one of the following methods:**

- Treat culture with a 10% bleach solution for 24 hours (1 part bleach to 9 parts culture medium or water culture medium removed). Then rinse bleach solution down the drain with water until you can no longer smell bleach. Rinse remaining materials and containers with water and dispose of them in a general garbage container.
- Carefully wrap specimens and their containers in a biohazard bag (without containing anything sharp that might puncture the bag) and tie closed (a twist tie works well). Autoclave the bag for 30 minutes at 121°C and at a pressure of 15 PSI. Dispose of autoclaved bag as your recommends.

5100 West Henrietta Road • PO Box 92912 • Rochester, New York 14692-9012 • p: 800 962-2660 • wardsci.com