



A cluster of tunicates and associated organisms living on a coral reef in the western Pacific Ocean. The striking blue solitary tunicates are members of the genus *Rhopalaea*. Tunicates are relatives of the chordates, the group of animals that includes humans. Tunicates are called sea squirts because they are filter feeders that draw in seawater through their incurrent siphon (larger opening) and expel it from the smaller excurrent siphon, filtering out small planktonic organisms that are used

as food. Many tunicates in tropical seas are brightly colored and may be solitary like these, or they may be connected together to form colonies.

Tunicates and sponges are among the groups of marine organisms that have been studied as potential sources of new drugs for treatment of cancer and other diseases. Several compounds isolated from tunicates have been found to be active against certain kinds of tumors. Many tunicates live in coral reefs or other highly competitive environments and have evolved the ability to synthesize chemical compounds like alkaloids for defense against predators and other threats. Scientists study these compounds as potential new drugs.

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