

# Isolation of symbiotic gastrodermal cells from hermatypic coral *Euphyllia glabrescens*

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## Abstract

The mutualistic endosymbiosis of Coral-*Symbiodinium* is regulated by complex interactions between coral and its symbiotic microalgae. For understanding the mechanism of endosymbiosis on cellular level, we established a method to isolate the symbiotic gastrodermal cell from hermatypic coral (*Euphyllia glabrescens*). In this study, the symbiotic gastrodermal cells (SGCs) were dissociated from the NAC-separated gastrodermal tissues by incubating with modified artificial sea water. Then SGCs were further purified by percoll gradient centrifugation. The purity, intactness and viability of isolated SGCs were further examined by the combination of several fluorescent probes. It demonstrated that 70% of the cells in SGC fraction were defined as intact SGCs and they were viable and suitable for further studies.

**Keywords:** Endosymbiosis, Symbiotic gastrodermal cell