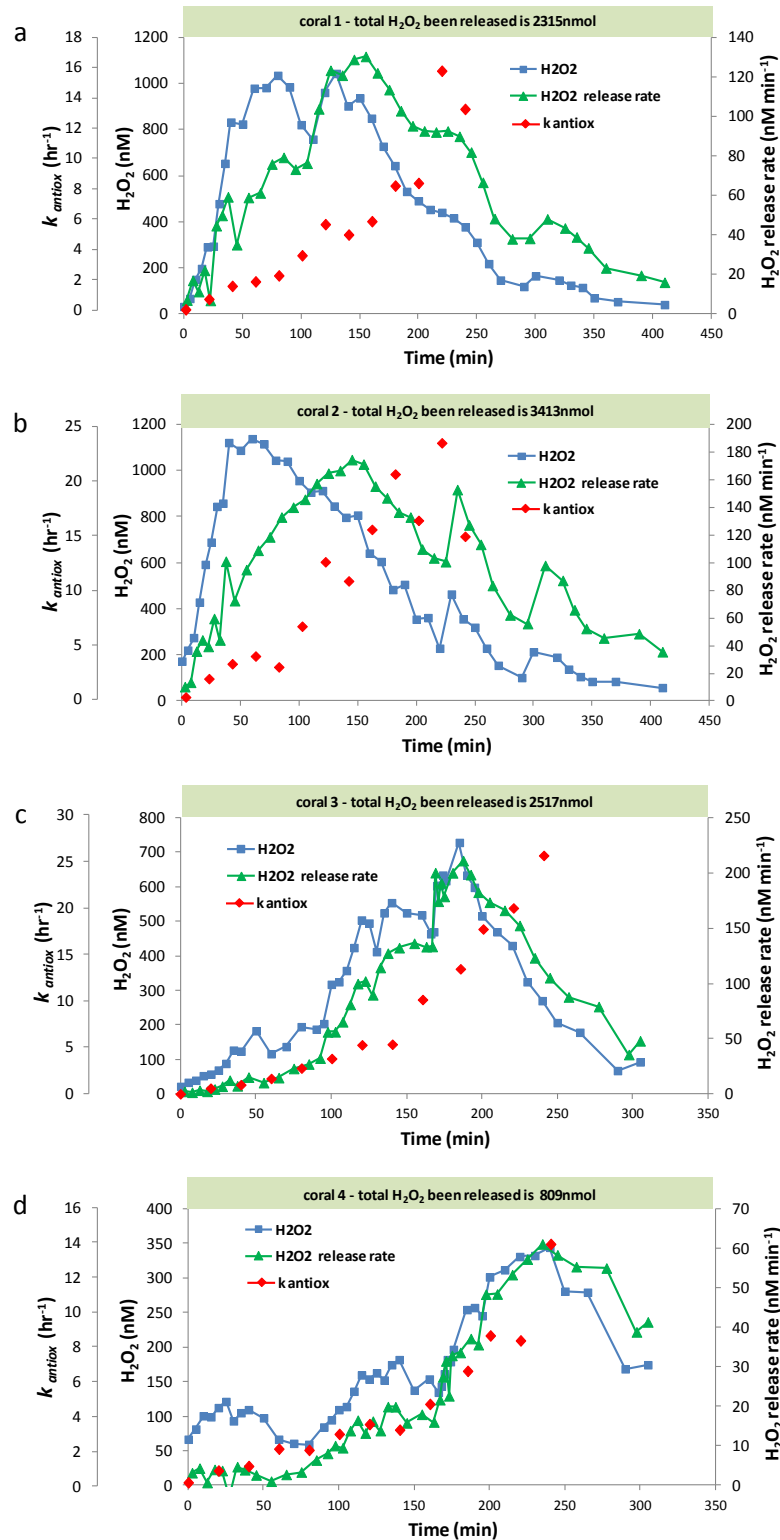


**Supplementary Figure 1.** H<sub>2</sub>O<sub>2</sub> and antioxidant activity release kinetics over long incubation experiments of four individual coral fragments (a-d) showing comparable patterns of linear antioxidant activity accumulation (red diamonds) and changing H<sub>2</sub>O<sub>2</sub> accumulation (blue squares) and release rate (green triangle) as showed also in Fig. 3. The total H<sub>2</sub>O<sub>2</sub> amount been released by the corals (indicated in the title) were summed using the frequent H<sub>2</sub>O<sub>2</sub> release rates calculations.



**Supplementary Figure 2.** H<sub>2</sub>O<sub>2</sub> release by *S. pistillata* coral fragments at low light intensity (of 10 μE) and complete darkness. The initial H<sub>2</sub>O<sub>2</sub> accumulation rates calculated in nmol per min shows that corals release H<sub>2</sub>O<sub>2</sub> in a similar manner at dark and low light conditions. These results suggest that H<sub>2</sub>O<sub>2</sub> is not produced via photosynthesis during the experiment. Alternatively, the symbiotic algae may produce extracellular H<sub>2</sub>O<sub>2</sub> or generate an internal H<sub>2</sub>O<sub>2</sub> pool prior to the experiment, which is released to the water upon stirring and ventilation of the coral.

