OA stress: Larval *C. gigas* were exposed to ocean acidification (OA) stress. Salt water came from Elliot Bay, WA (Seattle Aquarium, Seattle, WA). The water was filtered to 0.2 um and UV-sterilized before being pumped into treatment reservoirs. Larval rearing reservoirs were maintained at one of four treatment pCO2: 280 ppm (pre-industrial), 380 ppm (present-day global average), 750 ppm (predicted global average for 2050), or 2000 ppm (acidic upwelling). Partial pressure CO2 was regulated by a Licor solenoid system that added CO2 gas to CO2-depleted water to maintain correct levels.

Adult *C. gigas* were strip spawned, pooling eggs and sperm into separate beakers of ambient pCO2 water (380 ppm). Eggs were divided equally into smaller treatment fertilization beakers with 6 replicates per pCO2 treatment. The pooled eggs (approximately 1850 eggs per fertilization) were fertilized with the pooled sperm, let to sit for ~1 minute and transferred to a treatment jar with pCO2-equilibrated water. The jars held about 4 L of water (.45 eggs/mL) and were fitted with an internal cylindrical 20 um mesh filter and left static for 24 hours. At 24 hours post-fertilization, larvae were filtered from their tanks to change the water and samples from 3 tanks per treatment were taken off the filters and immediately frozen in liquid nitrogen. The larval samples represent ~1000 pooled *C. gigas* larvae.

*OA larvae*

*Sptlc1* showed decreased expression in all pCO2 treatments. *Hsp70* was more highly expressed in all treatments when compared to the control. Fold-differential expression and p-values are in Table 4.