# Supplementary Material

Supplementary figure legends

Supplementary figures S1-S6

#### **Supplementary figure legends**

### Table S1

Average LAP activity buffered in 0.1 M Tris and MOPS at pH 8.1 in coastal seawater ( $n=3 \pm SE$ ).

## Figure S2

Change in pHt in each treatment during trial 1 ( $n=3 \pm SD$ ).

## Figure S3

Change in pHt in each treatment during trial 2 ( $n=3 \pm SD$ ).

#### Figure S4

Cell specific AG activity (mean  $\pm$  SE, n=3) in response to seawater acidified with 0.1 M HCl (A), bubbled with CO<sub>2</sub>-Air gas mixture (B) and CO<sub>2</sub>-Air gas mixture introduced through gas-permeable silicon tubing (P) in trial 1.

#### Figure S5

Cell specific AAP activity (mean  $\pm$  SE, n=3) in response to seawater acidified with 0.1 M HCl (A), bubbled with CO<sub>2</sub>-Air gas mixture (B) and CO<sub>2</sub>-Air gas mixture introduced through gas-permeable silicon tubing (P) in trial 1.

#### Figure S6

Cell specific AAP activity (mean  $\pm$  SE, n=3) in response to seawater acidified with 0.1 M HCl (A), bubbled with CO<sub>2</sub>-Air gas mixture (B) and CO<sub>2</sub>-Air gas mixture introduced through gas-permeable silicon tubing (P) in trial 2.

# Supplementary figures

# Table S1

Trial	Tris activity (nmol $l^{-1} h^{-1}$ )	MOPS activity (nmol $l^{-1} h^{-1}$ )
1	51.54 (±2.32)	43.42 (±1.43)
2	35.92 (±0.81)	29.34 (±1.08)



















