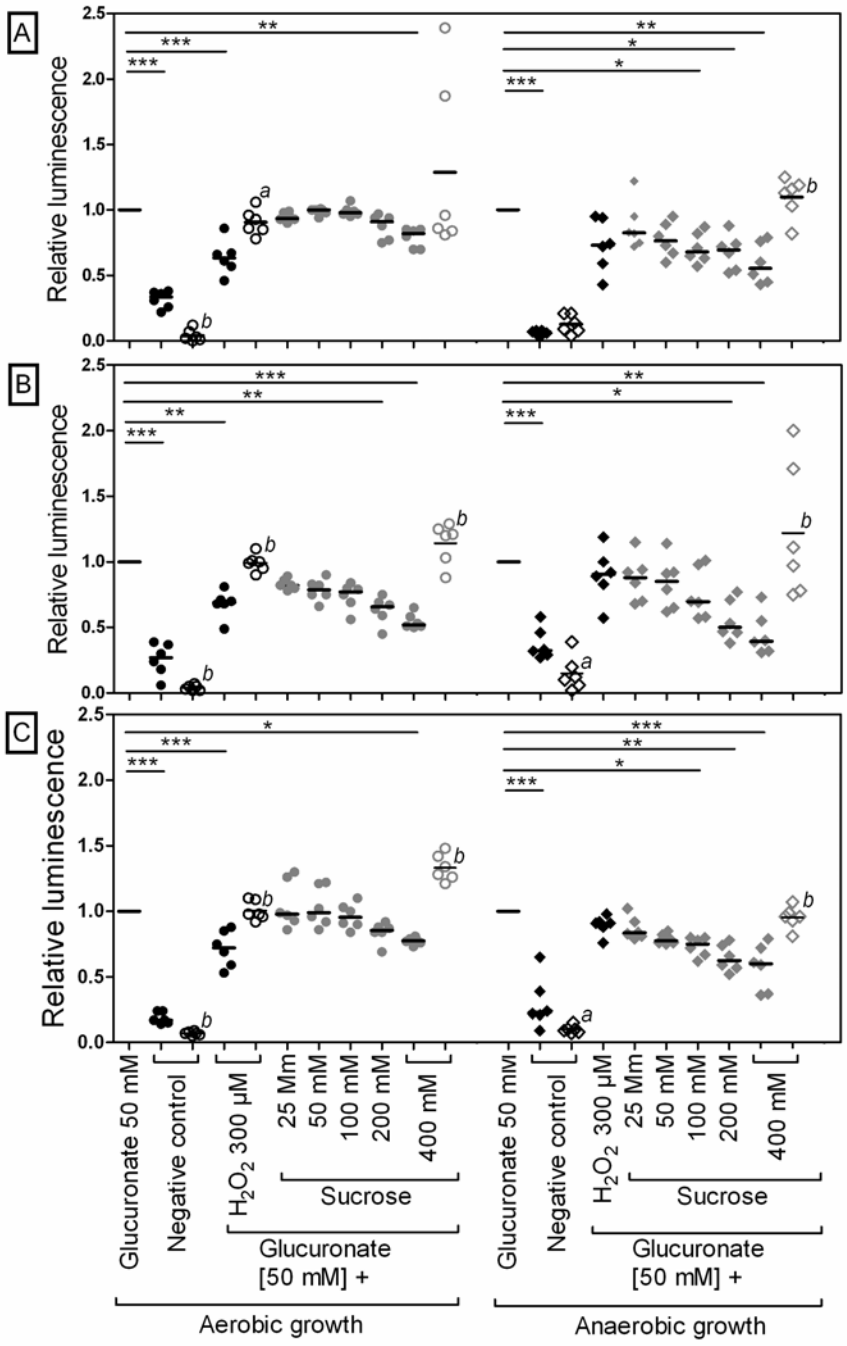

Figure S5. Repression of gene expression of hexuronate degrading enzymes UxaABC and UxuAB by carbohydrate-induced osmotic stress. Activity of the *uxaCA*, *uxaB*, and *uxuAB* promoters in *E. coli* MG1655 (filled symbols) and *E. coli* Δ*oxyR* (open symbols) on M9 minimal medium without substrate (negative control), glucuronate, H_2O_2, or sucrose under aerobic (left side, circles) or anaerobic (right side, diamonds) conditions after 90 min of incubation was investigated. Relative luminescence data for *E. coli* MG1655 or *E. coli* Δ*oxyR* carrying p*uxaCAp::luxAB* (A), p*uxaBp::luxAB* (B), or p*uxuABp::luxAB* (C) are shown. Luciferase activity was normalized to values determined for cells grown on 50 mM glucuronate. Data are expressed as medians (n = 6). For values obtained from wild type *E. coli*, the Kruskal-Wallis one-way analysis of variance and Dunn's multiple-comparison test were used for calculations. *, P < 0.05; ** P, < 0.01; ***, P < 0.001. The Mann-Whitney test was applied to compare wild type and mutant strains. *a*, P < 0.05; *b*, P < 0.01; *c*, P < 0.001.