



Supplementary Fig.: S1: Direct measurement of buffer capacity and the anionic response of the resin. (A) Example traces of pH_{in} (green) and Cl^-_{in} (red) changes in *Xenopus* oocytes injected twice with 13.8 nL of 100 mM HCl. The average changes in Cl^-_{in} and pH_{in} were used to calculate the oocytes intrinsic buffer capacity. **(B)** Response of the anion-specific resin to the indicated concentration of Br⁻ (●), NO₃⁻ (▲) and I⁻ (■).