

## **Supplementary Fig. 3.** Na<sup>+</sup>-dependence of DMT1 H<sup>+</sup> and H<sup>+</sup>/Mn<sup>2+</sup> currents.

Replacement of extracellular Na $^+$  by NMDG $^+$  slightly increased the proton current (~20 %) and this was further augmented by adding 300  $\mu$ M Mn $^{2+}$ . The concentrations used were: Na $^+$  and NMDG $^+$ , 140 mM, pH 4.2, Mn $^{2+}$ , 300  $\mu$ M.