Supplementary Fig. 1. CHO-K1 cells express an endogenous proton-activated chloride channel.

a, Anion dependence of pH-induced response in a DMT1-expressing cell. Outward current usually appears later than the inward current. b, Currents generated in response to a voltage ramp. c, pH-induced outwardly rectifying current in a non-transfected CHO-K1 cell. A similar current was seen also in HEK293T and HEK-On cells, with properties similar to the cloned ClC-7 channel (Diewald et al. Activation by acidic pH of CLC-7 expressed in oocytes from Xenopus laevis. Biochem Biophys Res Commun. 2002;291(2):421-4.).

This current exhibits the same anion dependence as in a (not shown). We attributed the outward currents shown in a and b to this endogenous Cl⁻ current. Therefore, for our recordings on DMT1, SO⁴²⁻ was usually used to replace most of the Cl⁻ ([Cl⁻] = 5 mM) for all low-pH bath solutions.