Cao et al., http://www.jgp.org/cgi/content/full/jgp.201311025/DC1

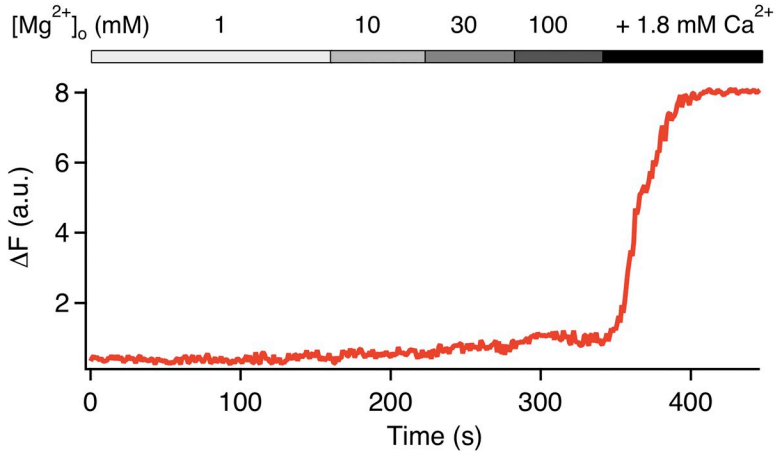

Figure S1. Fluorescence intensity increase upon channel opening was mainly induced by Ca^{2+}, while Mg^{2+} could also induce a small fluorescence signal. A TRPV1-expressing cell was loaded with Fluo-4; channel activation was induced by increasing concentration of Mg^{2+} in the absence of Ca^{2+}. At the end of the recording, the cell was exposed to a solution containing 100 mM Mg^{2+} supplemented with 1.8 mM Ca^{2+}. The large increase in fluorescence intensity indicates that the fluorescence increase observed in this study was predominantly from binding of Ca^{2+} instead of Mg^{2+} to Fluo-4.

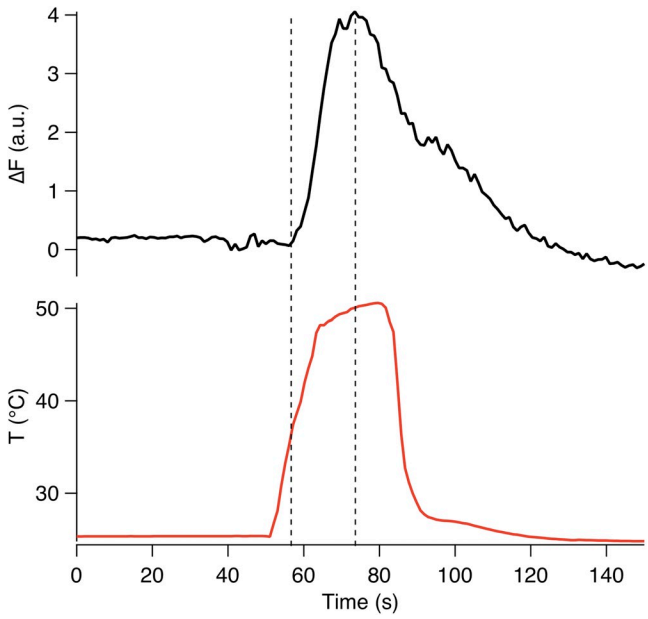

Figure S2. Representative time course of the temperature-dependent fluorescence intensity change (top) upon heating (bottom) in a TRPV1-expressing cell. Broken lines indicate the times when the activation threshold temperature (first) and the peak current (second) were reached. Decline of fluorescence intensity started while the temperature remained high.