

Figure S1

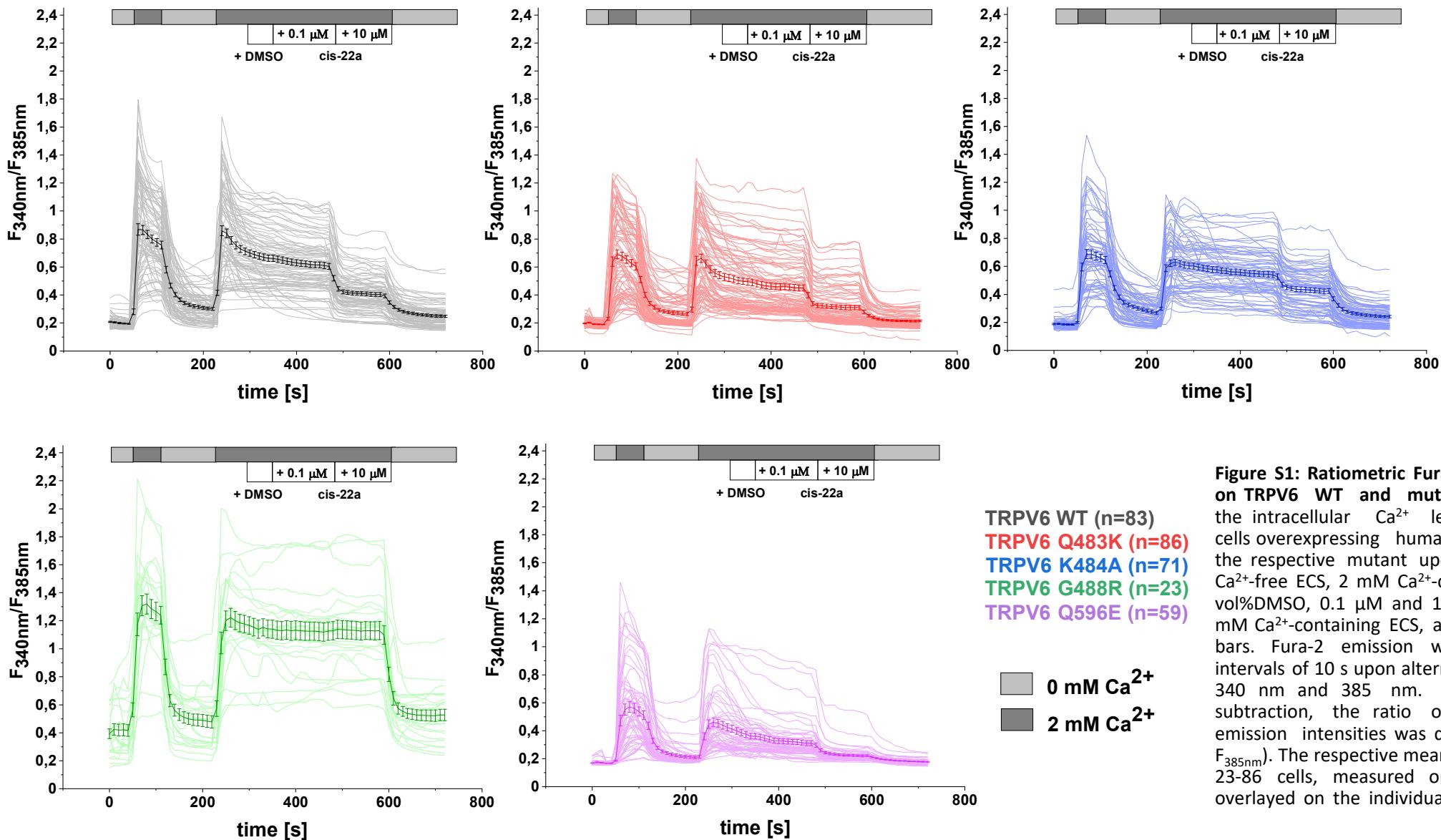


Figure S1: Ratiometric Fura-2 measurements on TRPV6 WT and mutants. Changes in the intracellular Ca^{2+} level of HEK293 cells overexpressing human TRPV6 WT or the respective mutant upon perfusion with Ca^{2+} -free ECS, 2 mM Ca^{2+} -containing ECS, 0.1 vol%DMSO, 0.1 μM and 10 μM cis-22a in 2 mM Ca^{2+} -containing ECS, as indicated by the bars. Fura-2 emission was monitored in intervals of 10 s upon alternating excitation at 340 nm and 385 nm. After background subtraction, the ratio of the respective emission intensities was determined ($F_{340\text{nm}}/F_{385\text{nm}}$). The respective mean values ($\pm \text{SEM}$) of 23-86 cells, measured on 2-4 days, are overlaid on the individual traces.

TRPV6 WT (n=83)
 TRPV6 Q483K (n=86)
 TRPV6 K484A (n=71)
 TRPV6 G488R (n=23)
 TRPV6 Q596E (n=59)

■ 0 mM Ca^{2+}
 ■ 2 mM Ca^{2+}

Figure S2

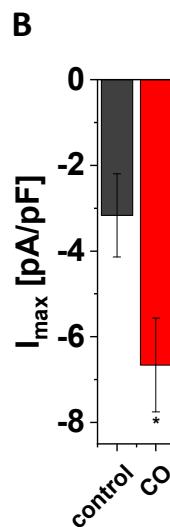
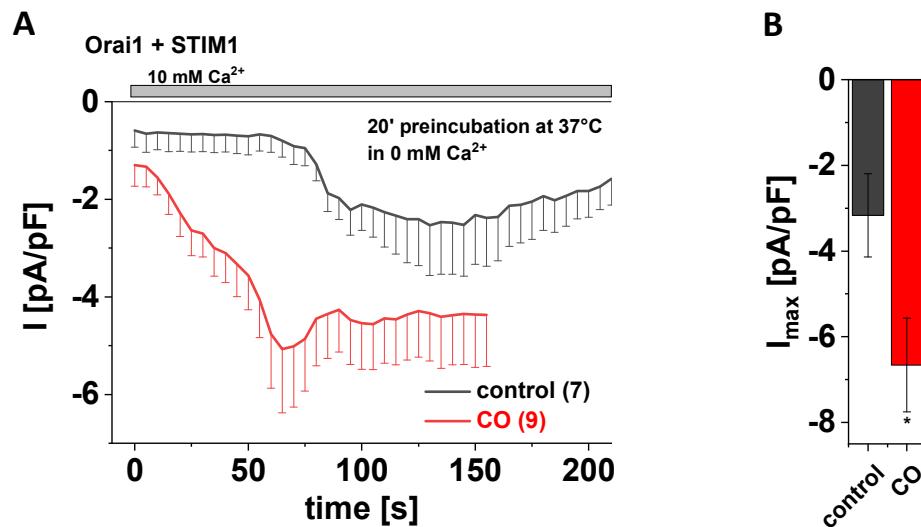


Figure S2: Preincubation with cholesterol oxidase significantly increases maximum CRAC currents. (A) Averaged time course of whole-cell currents (mean \pm SEM) recorded from HEK 293 cells coexpressing Orai1 and STIM1. Cells were preincubated in 0 mM Ca₂₊ extracellular solution with (red) and without (control, black) 2 U/ml CO at 37 °C for 20 minutes. Measurements were carried out in 10 mM Ca₂₊ extracellular solution. (B) Block diagram of maximum currents according to measurements in (A). The asterisk (*) highlights the statistical significance ($p < 0.05$) in comparison to control experiments.