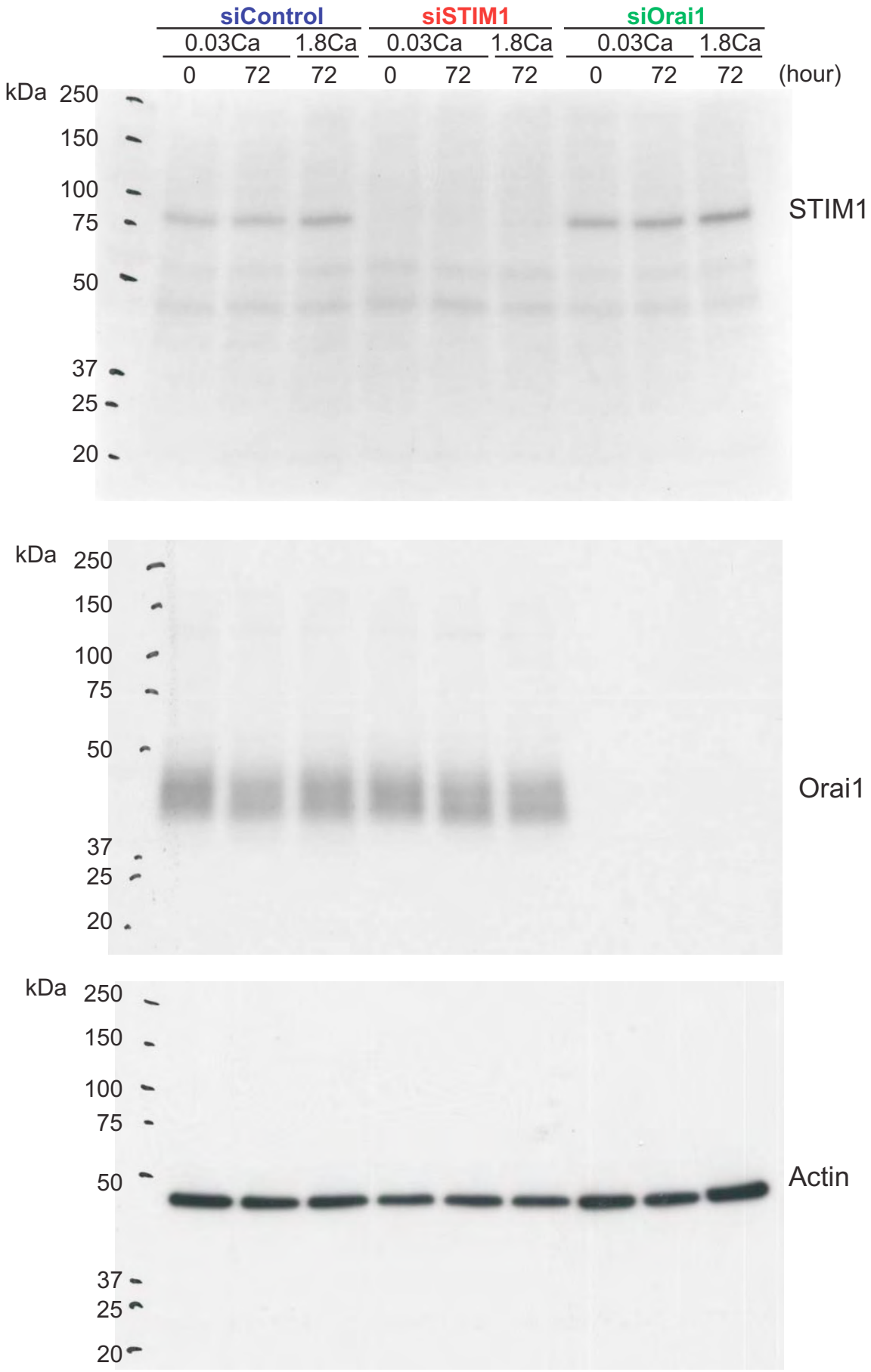

Fig. S1. Uncropped images of western blotting showing STIM1 and Orai1 protein expression in siRNA-transfected HaCaT cells before and after Ca^{2+} switch used in Fig. 1A.

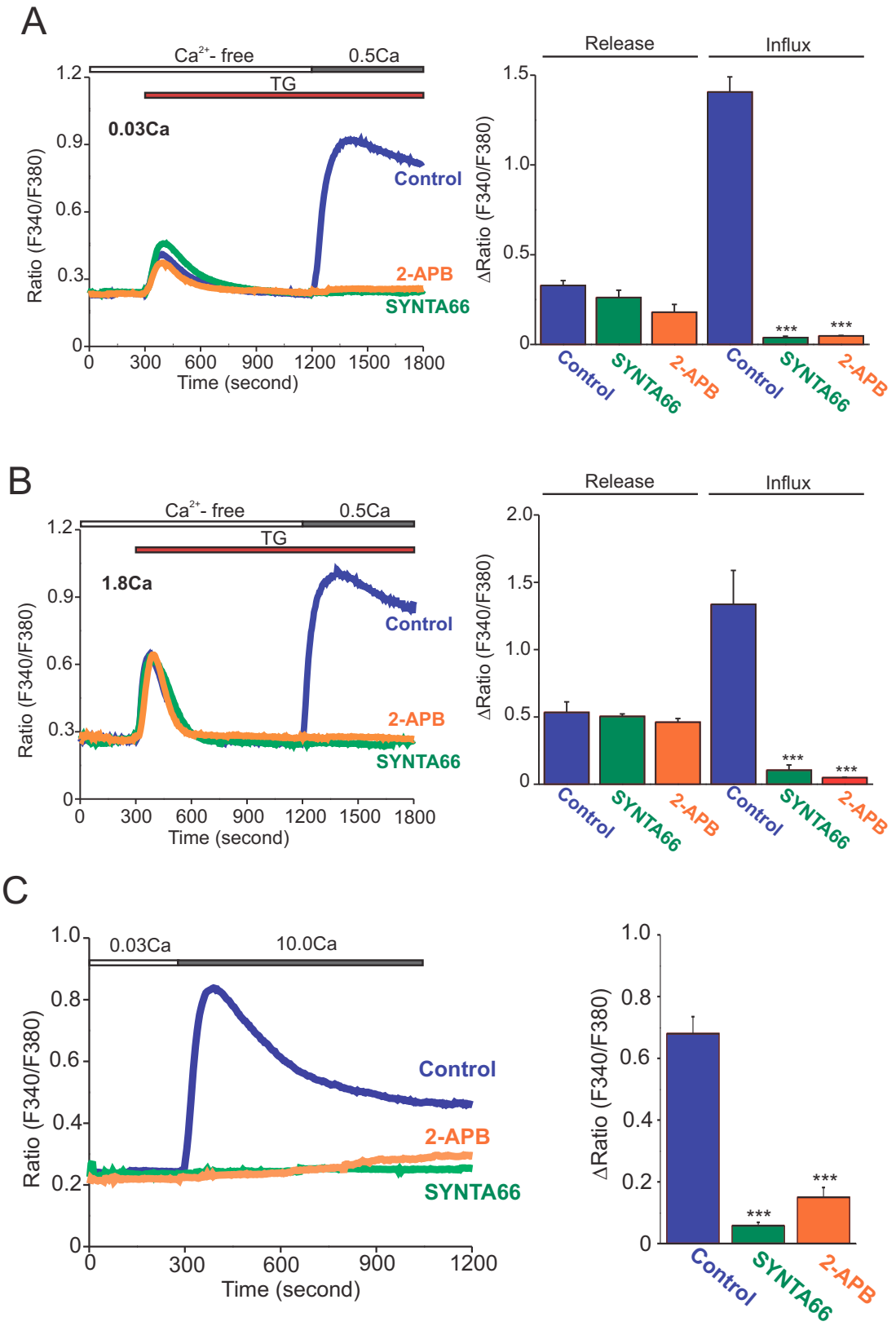

Fig. S2. TG-induced SOCE and Ca^{2+}-switch-induced Ca^{2+} responses are strongly inhibited by Orai-specific SOCE inhibitors. (A,B) Average time courses of TG-induced Ca^{2+} responses in HaCaT cells cultured in 0.03 mM Ca^{2+} (A) or 1.8 mM Ca^{2+} (B)-containing KGM-2. Cells were treated with 5 μM SYNTA66 or 30 μM 2-APB 5 minutes prior to TG treatment in the absence of extracellular Ca^{2+}. Right panels showed peak [Ca^{2+}] rises attributable to Ca^{2+} release and influx evoked by TG. Data are means ± s.e.m. from three independent experiments. (C) Average time courses of 10 mM extracellular Ca^{2+}-induced Ca^{2+} responses in HaCaT cells. Cells were treated with 5 μM SYNTA66 or 30 μM 2-APB 5 minutes before Ca^{2+} switch (left). Peak [Ca^{2+}] rises of Ca^{2+}-switch-induced Ca^{2+} responses (right). Data are means ± s.e.m. from three independent experiments. ***P<0.001 (one way ANOVA followed by Tukey's test).

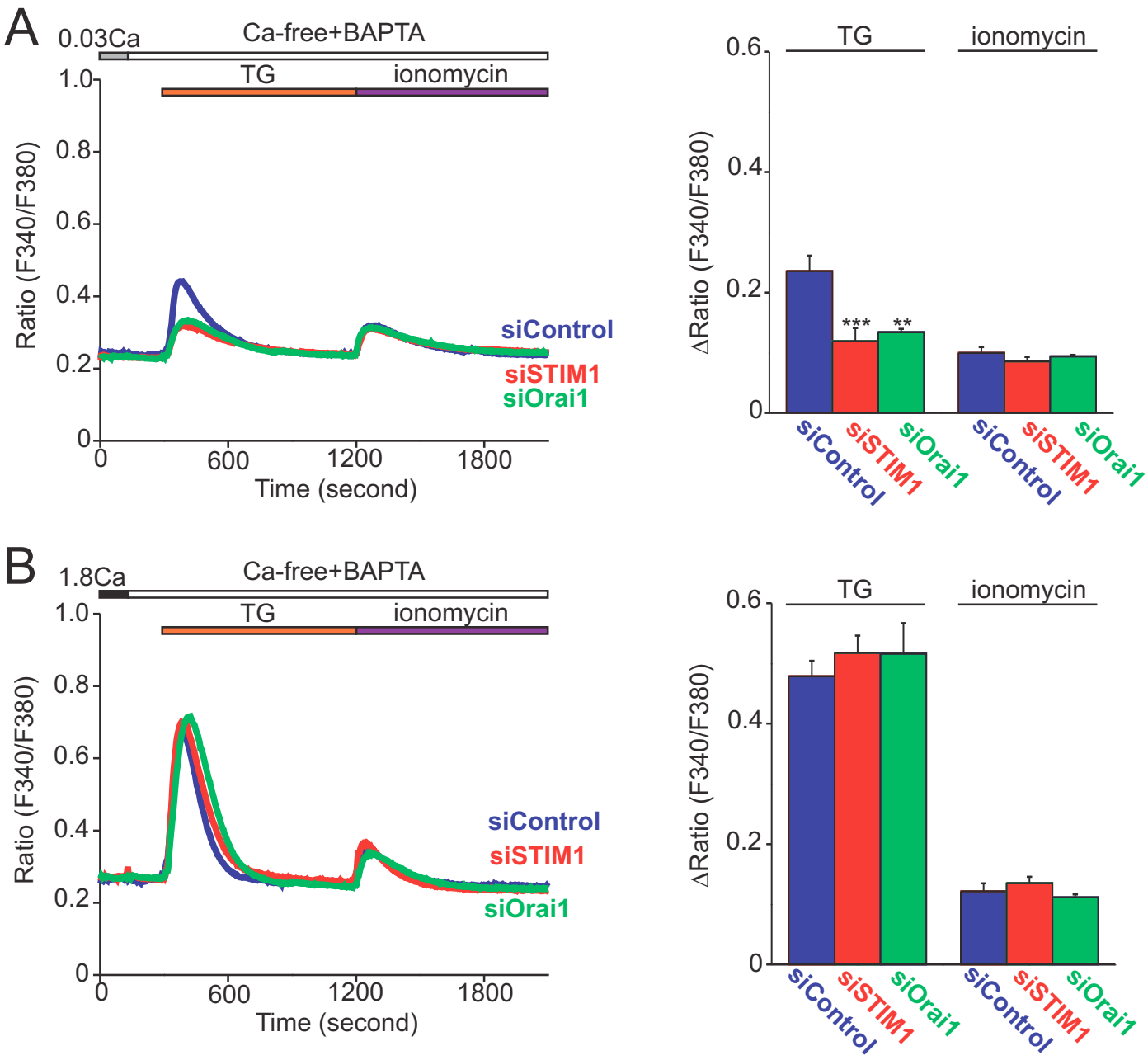

Fig. S3. STIM1 and Orai1 knockdown only reduce TG-sensitive intracellular Ca^{2+} stores of ER in HaCaT cells cultured in 0.03 mM Ca^{2+}. (A,B) Average time courses of Ca^{2+} release from ER and other intracellular Ca^{2+} stores by sequential treatment of 2 μM TG and 20 μM ionomycin in 3 mM BAPTA containing solution in siRNA-transfected HaCaT cells cultured in 0.03 mM (A) or 1.8 mM (B) Ca^{2+}-containing KGM-2. Right panels showed peak [Ca^{2+}] rises attributable to Ca^{2+} release evoked by TG or ionomycin. Data are means ± s.e.m. from three independent experiments. $^{**}P<0.01$, $^{***}P<0.001$ (one way ANOVA followed by Tukey's test).