

Supplemental Figure S1

Supplemental Figure S1. Evaluation of mRNA knockdown by quantitative RT-PCR

A, comparison of the mRNA levels of Ca²⁺ entry-related channels in the cells transfected with the siRNA for one of those channels. *B*, comparison of the mRNA levels of three types of Ca²⁺-dependent PKC in the cells transfected with the siRNA for PKC α or PKC β . Each mRNA level was compared to that in the cells only treated with the Lipofectamine RNAiMAX transfection reagent (mRNA in control). The results were obtained from three separate assays and expressed as mean \pm S.E.M.s. Selective suppression of the targeted mRNA to 10-20%, without significant off-target suppression of other mRNAs, is confirmed for all the siRNAs.

A Orai1 siRNA





Supplemental Figure S2

Supplemental Figure S2. Effects of siRNAs for Orai1 and TRPC3 on bradykinin-induced VSOR currents

Bradykinin-induced currents were monitored during repetitive application of a pair of step voltage pulses to $\pm 40 \text{ mV}$ (0.5 s duration) from the holding potential of 0 mV every 5 s. The arrowheads indicate the 0 current level. The current responses indicated by the symbols were elicited by test voltage pulses consisting of the pulses (0.5 s duration) from -100 mV to +100 mV in 20 mV increments with pre-pulses (0.1 s duration) to -100 mV and post-pulses (0.1 s duration) to -80 mV. A, an example of bradykinin-induced VSOR current in Orai1 siRNA-transfected cells. The majority of the cells (19 of 32 cells) showed this pattern of monotonic current enhancement during bradykinin application. The I-V relationships before and 20 min after bradykinin application averaged over the total 32 cells are shown in the right panel. Ba, an example showing a waxing and waning pattern of current development induced by bradykinin in TRPC3 siRNA-transfected cells. This pattern was seen in 14 of 27 cells. Bb, an example showing a monotonic current development induced by bradykinin in TRPC3 siRNA-transfected cells. This pattern was seen in the rest of the cells. Bc, I-V relationships averaged over the total 27 cells. Filled circles indicate the mean values before application of bradykinin and open circles indicate those after 20 min.