

Description of Additional Supplementary Files

File name: Supplementary Data 1

Description: Source data behind the graphs in the paper

File name: Supplementary Movie 1

Description: Monitoring the membrane dynamics induced by 1 μM A23187-mediated scrambling activity in cells expressing TMEM16E with AV-binding buffer. It was recorded with confocal microscopy for 15 min at 30-s intervals.

File name: Supplementary Movie 2

Description: Monitoring the membrane dynamics induced by 1 μM A23187-mediated scrambling activity in TMEM16E-expressing cells pretreated with 3 mM amiloride for 15 min before imaging. It was recorded with confocal microscopy for 15 min at 30-s intervals in AV-binding buffer.

File name: Supplementary Movie 3

Description: Monitoring the membrane dynamics induced by the 10# protocol with 10 μM A23187-mediated endogenous Ca^{2+} -PLS in cells expressing GFP. Protocol 10# means applying zero Ca^{2+} external solution containing 10 μM A23187 for 5 min, and then 2.5 mM Ca^{2+} external solution with AV diluted 1:200. It was recorded with confocal microscopy for 15 min at 30-s intervals.

File name: Supplementary Movie 4

Description: Monitoring the membrane dynamics induced by the 10# protocol with 10 μM A23187-mediated endogenous Ca^{2+} -PLS in GFP-expressing cells pretreated with 3 mM amiloride for 15 min before imaging. Protocol 10# means applying zero Ca^{2+} external solution containing 10 μM A23187 for 5 min, and then 2.5 mM Ca^{2+} external solution with AV diluted 1:200. It was recorded for 15 min at 30-s intervals by confocal microscopy.

File name: Supplementary Movie 5

Description: Monitoring the membrane dynamics induced by 1 μM A23187 in cells co-expressing PI(3,4,5)P3 marker PH-Btk-GFP (green) and TMEM16EmCherry (red). Cells starved for 6 hrs were treated with AV 680 binding buffer containing 1 μM A23187 and recorded with confocal microscopy for 15 min at 30-s intervals.

File name: Supplementary Movie 6

Description: Monitoring the membrane dynamics induced by 1 μ M A23187 in cells co-expressing PI(3,4,5)P3 marker PH-Btk-GFP (green) and TMEM16EmCherry (red). Cells starved for 6 hrs and pretreated with 300 nM wortmannin for 1 h were treated with AV 680 binding buffer containing 1 μ M A23187 and imaged with confocal microscopy for 15 min at 30-s intervals.

File name: Supplementary Movie 7

Description: Monitoring the scrambling activity of cell expressing TMEM16E E584Q in AV-binding buffer without A23187 (none). It was recorded with confocal microscopy for 15 min at 30-s intervals.

File name: Supplementary Movie 8

Description: Monitoring the scrambling activity of a TMEM16E E584Q-expressing cell pretreated with 3 mM amiloride for 15 min before imaging in AV-binding buffer without A23187 (none). Cells were pretreated with 3 mM amiloride for 15 min before imaging and imaged with confocal microscopy for 15 min at 30-s intervals.