

Fig S1. Shapes of amperometric spikes triggered by Ca^{2+} , Sr^{2+} or Ba^{2+} . **A-C**. Spikes triggered by Ca^{2+} had faster rise times and decay times, and shorter half-widths. Spikes triggered by Ba^{2+} had the slowest rise times and decay times, and longer half-widths. Spikes triggered by Sr^{2+} were intermediate. **D**. Peak heights were the same for spikes triggered by the three cations. **E-F**. Pre-spike feet (fusion pore openings) in exocytotic events triggered by Ca^{2+} were less stable and had the same amplitudes as exocytotic events triggered by Sr^{2+} or Ba^{2+} . 320 - 1083 spikes were recorded from 62 - 80 cells for each divalent cation. Error bars represent S.E.M. *, $P < 0.05$; ***, $P < 0.001$.

Movie S1. Exocytosis of syt I-pHluorin labeled DCVs triggered by Ca^{2+} .

Movie S2. Exocytosis of syt VII-pHluorin labeled DCVs triggered by Ca^{2+} .

Fig S1

