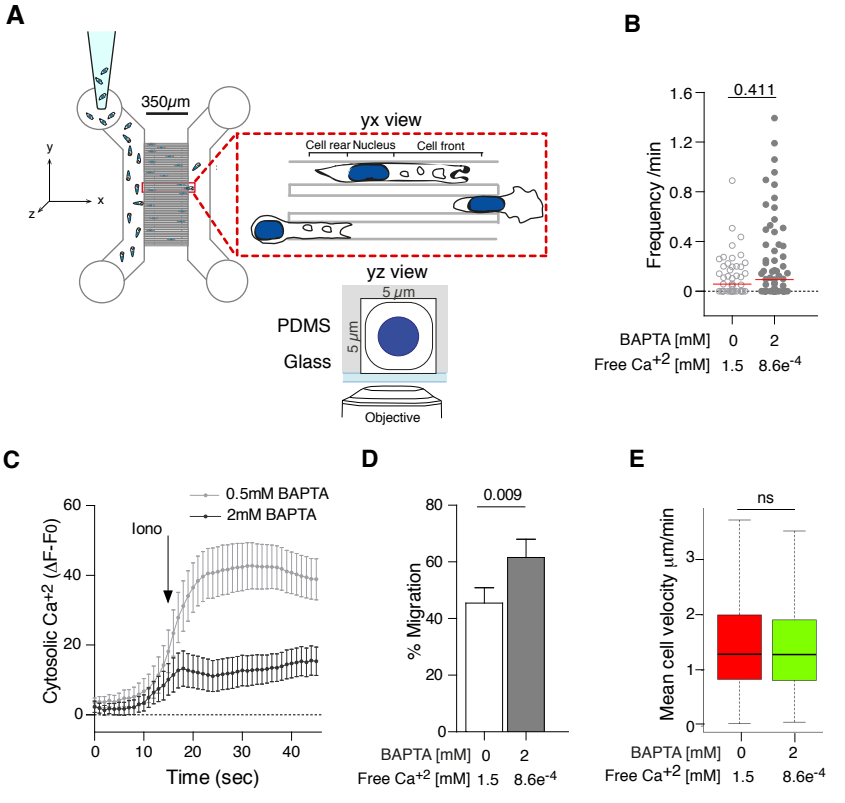

Figure S1

A: Scheme of the micro-fluidic device used in this study. DCs enter spontaneously and migrate in micro-channels. Up, yx view showing the DC shape while migrating in micro-channels. They are polarized and contained numerous giant vesicles at their front. Bottom, yz view and size of micro-channels.

B: Frequency of calcium oscilations displayed by immature DCs migrating in micro-channels in the presence or absence of 2mM BAPTA (n>45 cells from three independent experiments). The p-value was determined with an unpaired t-test.

C: Ca2+ influx after Ionomycin adition in the presence or absence of 2mM BAPTA. DCs were plated in fluoro-dishes, loaded with the Ca2+ indicator Fluo-4-AM and re-suspended in medium with or without 2mM BAPTA (n=45 cells from one experiment). DCs were imaged every 10s. Ionomycin addition time is shown with an arrow.

D: Transmigration assay of immature DCs: cells were loaded in the upper chamber of a 5μm pore collagen coated-transwell with or without 2mM BAPTA and counted after over-night migration. The median of triplicates from a representative experiment out of two is shown with its standard deviation.

E: Speed displayed by immature DCs migrating in collagen matrices in the presence of 2mM BAPTA. DCs were imaged every 2 min during 16 hours at 10X magnification. The line represents the median from two independent experiments. Boxes contain 50% of all data points, the bars cover the 99.3% of the sample.