



Supproting information

## Effect of electrolyte concentration on cell sensing by measuring ionic current waveform through micropore

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**Figure S1.**  $I_P$ - $t_d$  scatter plot by RPM analysis in 0.5 × PBS with a mixture of cancer cells and leukocytes. (a) The results of measuring leukocytes and cancer cells separately. (b) The results of measuring leukocytes and cancer cells in a mixed manner. Similar cell distribution could be observed when cells were measured separately.



**Figure S2.** RPM analysis of other cancer cells in  $0.5 \times PBS$ . (a) The microscopic images of KATO-III. To determine the size of KATO-III cells, 100 cells were examined using an optical microscope. The average value and SD for cell diameters of KATO-III cells were  $15.8 \pm 4.7 \mu m$ , which were larger than NCI-H1650 cells. (b) Scatter plot of  $I_{p}$ - $t_{d}$  for leukocytes and KATO-III cells. As a whole, the similar cell distribution as in the case of NCI-H1650 cells is observed, and it is possible to accurately discrimination it from leukocytes. The  $I_{p}$  value tends to be clearly enhanced, reflecting the size of the cell size.