Real-time detection of the early event of cytotoxicity of herbal ingredients on single leukemia cells studied in a microfluidic biochip

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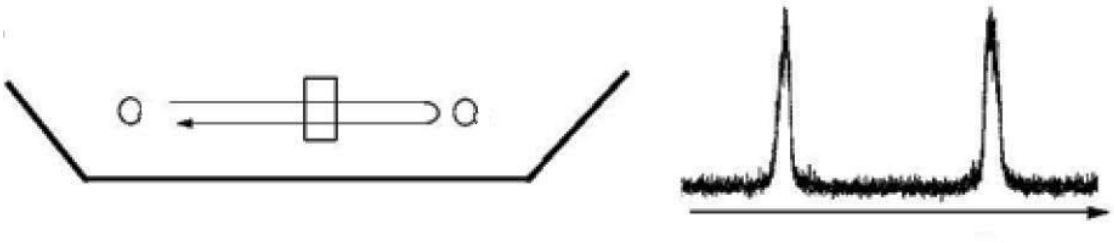
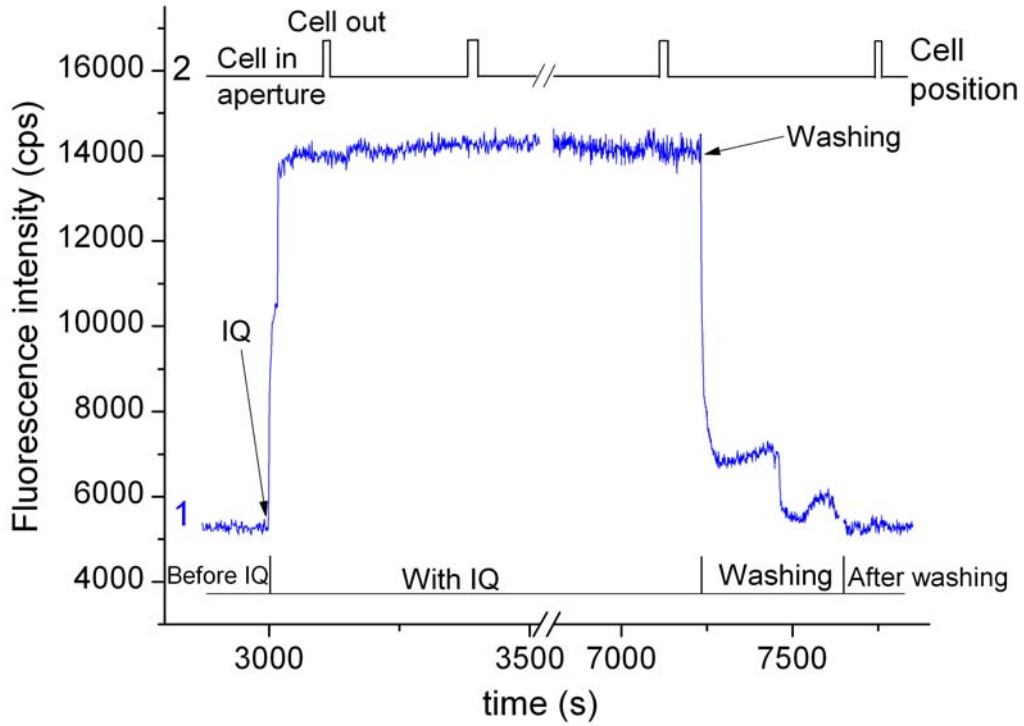
Figure S1: The procedure of cellular fluorescence measurement with background correction.



This procedure has been previously developed to obtained cellular fluorescence.[41] The solution background was measured when the cell is out of the observation aperture (see the baseline). The total fluorescence was measured when the cell was within the aperture (see the peak). The peak height represents the genuine cellular fluorescence. In the case of no observed peak, there was no cellular fluorescence.

Figure S2: Measurement of fluorescence before IQ introduction and after washing away the IQ solution.



Curve 1 represents the total fluorescence measured over the course of the experiment, (a) before IQ introduction, (b) during IQ treatment and background check, (c) during the washing step, and (d) after washing and background check. The background check was performed when the cell position was out of the observation aperture, as shown in trace 2. No peak was found when the cell was in the aperture as compared to when the cell was out of the aperture, indicating that there was no cellular fluorescence.