

Supplemental information

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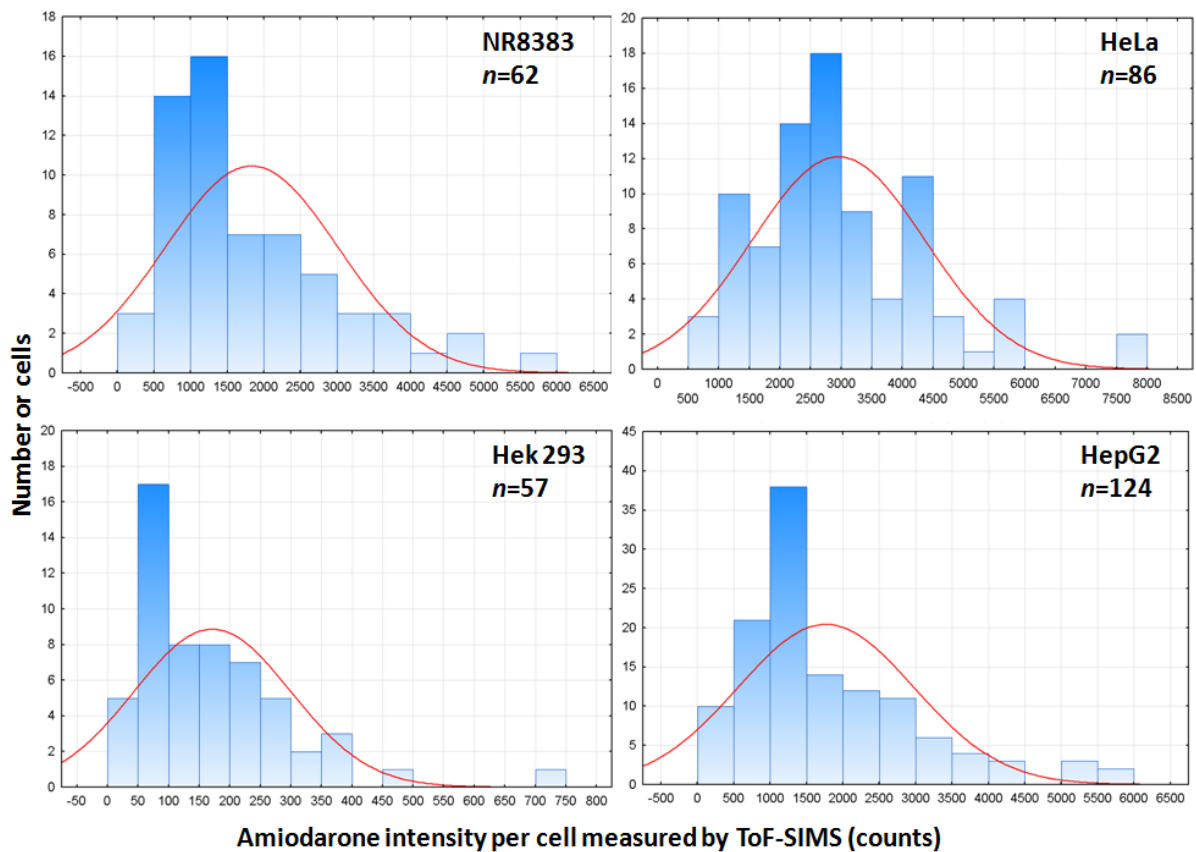


Figure S1: Frequency histogram of total amiodarone signal intensity (counts) per cell measured by ToF-SIMS for each of the four cell types, NR8383, HeLa, Hek293 and HepG2. The fitted Normal distributions are displayed as a solid red curve.

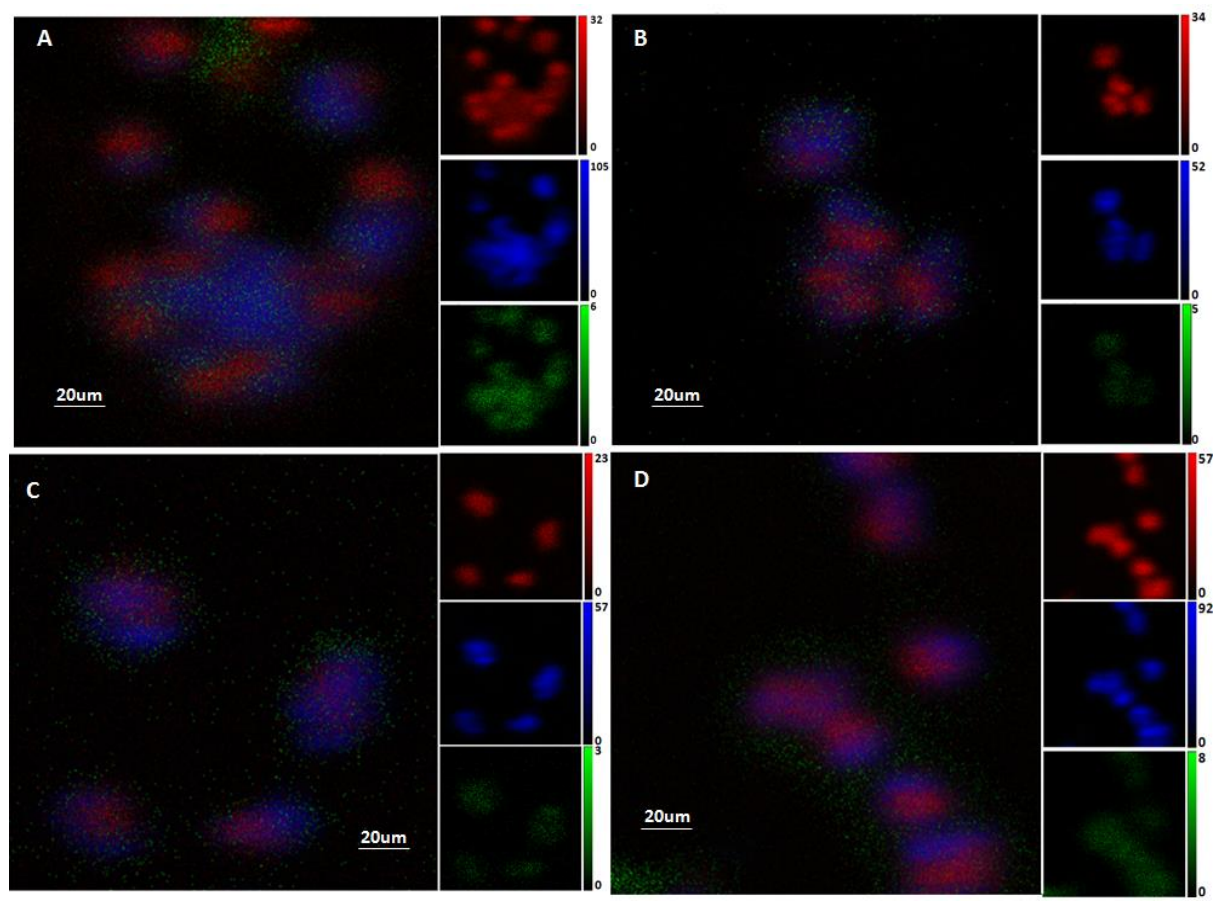


Figure S2: ToF SIMS 2D composite image of secondary ions acquired using the lower spatial resolution mode used to collect the larger number of cell measurements. (A) NR8383 cells, (B) HeLa cells, (C) Hek293 cells, (D) HepG2 cells, they were incubated for 2 hours with 9.7 nmol/mL. Composite image with all the 3 extracted signals. Red represents Ribose m/z 81 $[M+H]^+$, blue shows the signal from the phosphatidylcholine lipid fragment (MH^+ 184), and green shows the amiodarone signal.

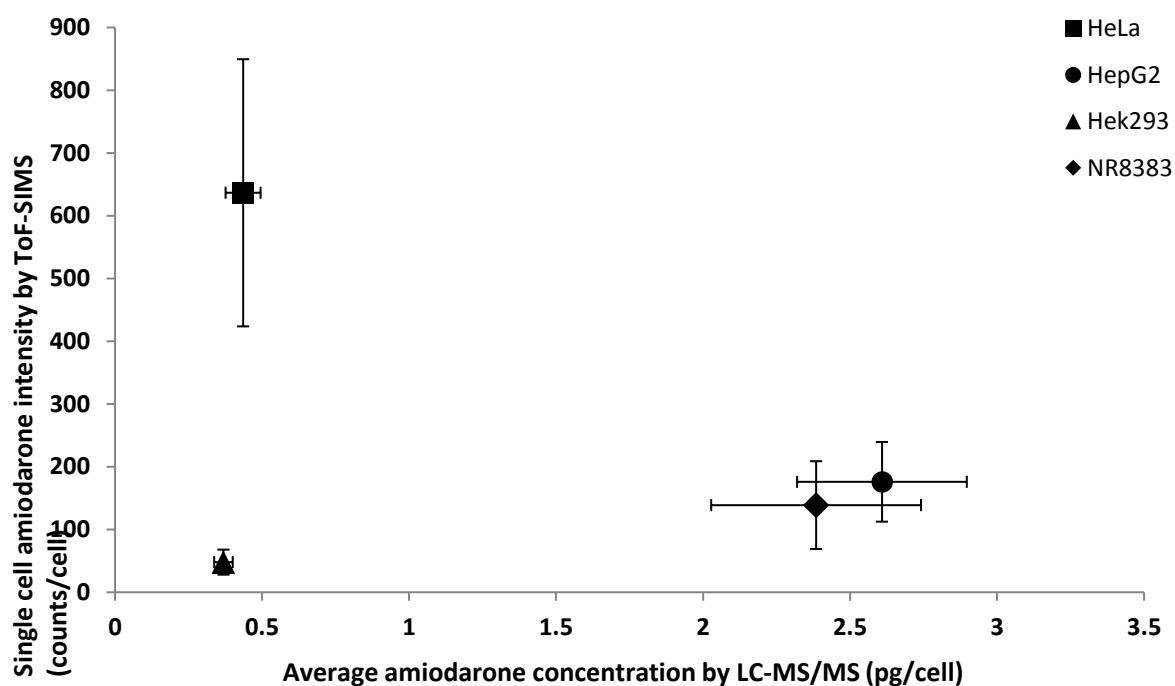


Figure S3: Amiodarone intensity determined by ToF-SIMS (mean plotted from individual cell measurements) versus the amiodarone cell uptake determined by LC-MS/MS population ensemble measurement from approximately 4.7×10^6 cells for all cell lines after incubation with 9.7 nmol/mL for 2 hours for the high resolution imaging mode used (this data directly relates to figure 4). The diamond represents the NR8383 cell line, the square represents HeLa cells, the circle represents HepG2 and the triangle represents Hek293 cells. The error bars represent one standard deviation from the average value.