SUPPLEMENTARY MATERIALS

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Table of Contents

Figure

Figure S2. The property of DiI-droplet released vesicles

Figure S3. The initial scatter plot of different cellular responses.

VIDEOS

Movie S1. 3D images of the interaction between cell and ADV-bubble after droplet vaporization.

Movie S2. Side-view images of droplet vaporization acquired by high-speed fluorescence microscopic imaging.

Movie S3. Time-lapse microscopic images demonstrated that the ADV-bubble induces substance leakage from cytoplasm after ADV-bubbles attaching to the cells.

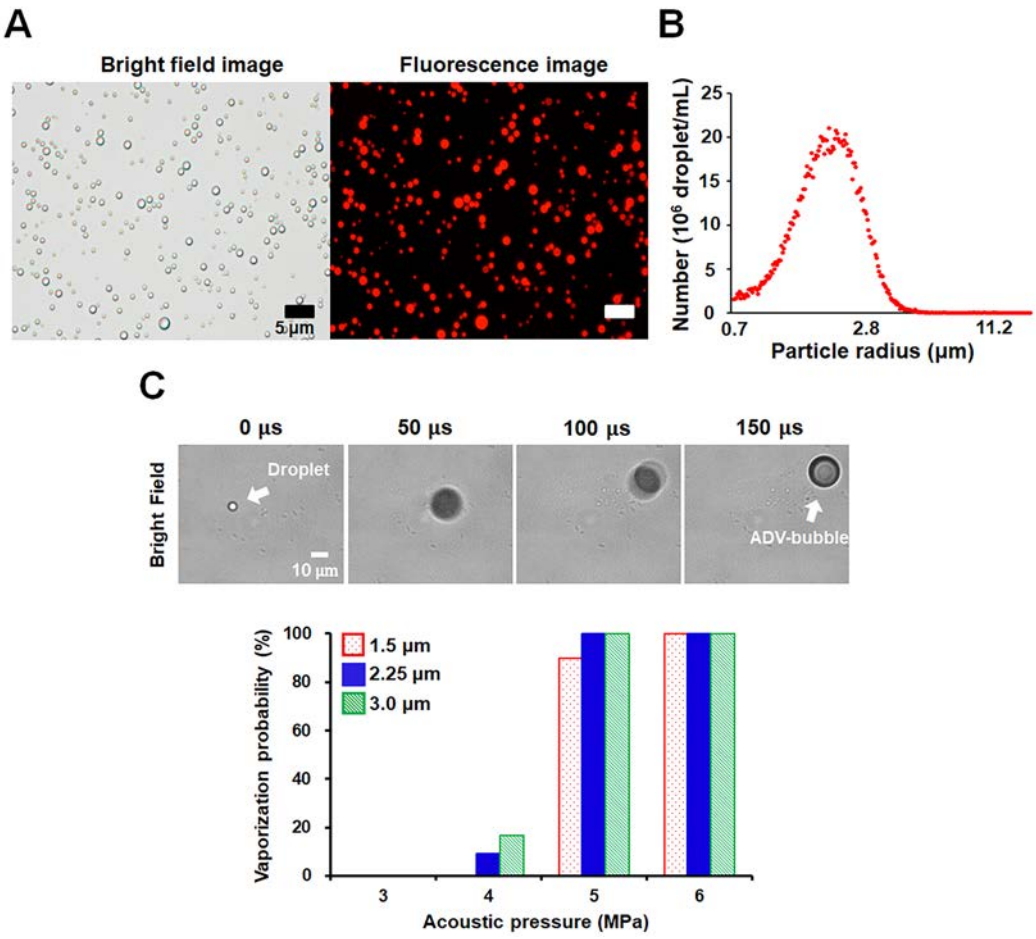
Movie S4. Time-lapse microscopic images demonstrated that the ADV-bubble torn off cellular membrane after ADV-bubbles attaching to the cells.

Method

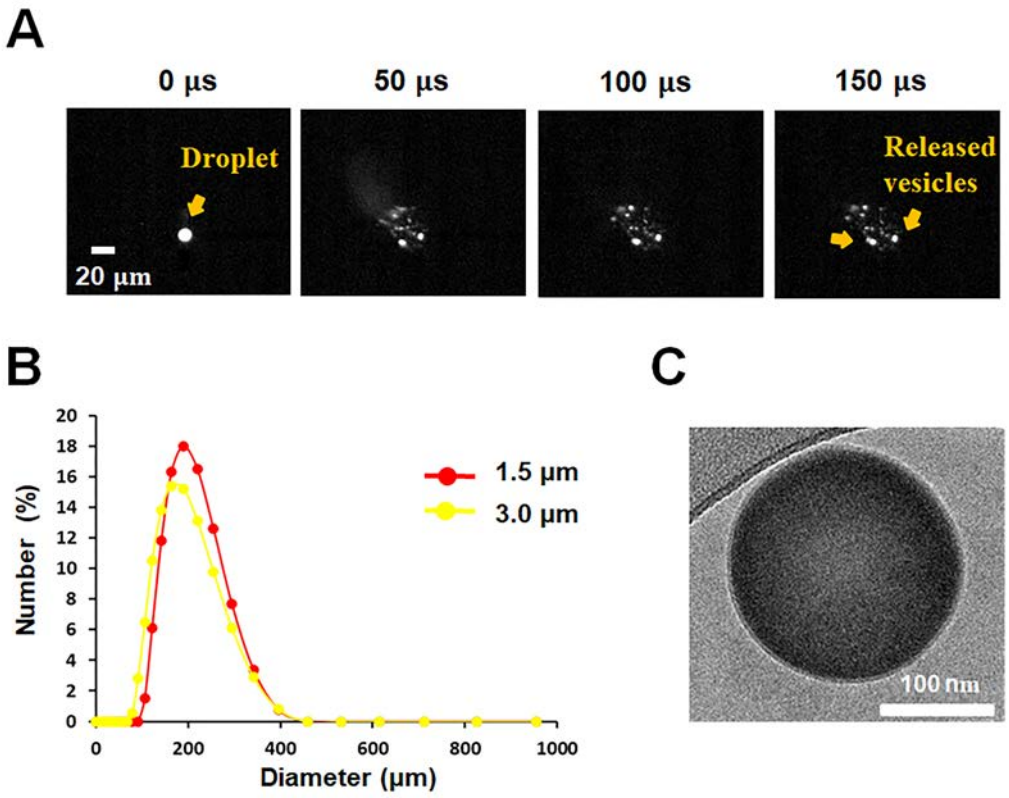
Characteristics of droplet-generated vesicles

In order to measure the size of droplets-generated vesicles, the droplets were firstly vaporized by ultrasound, and the suspensions were collected and analyzed by a dynamic light-scattering system (DLS, Nanosizer-S, Malvern, London, UK) and a transmission electron microscope (TEM, Hitachi H-7100, Tokyo, Japan).

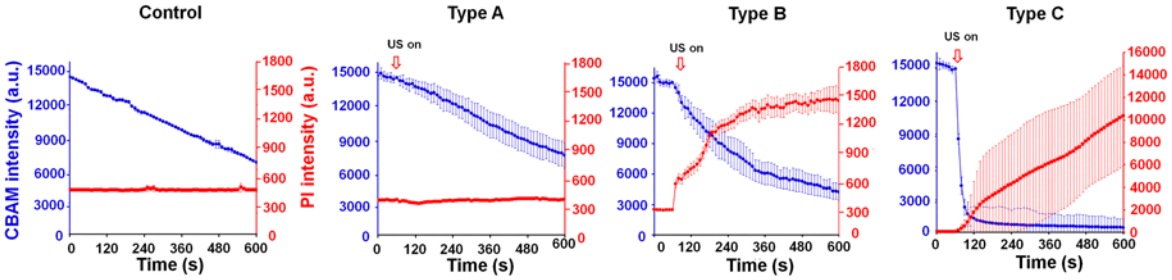
Figure



Supplemental Figure S1. (A) Bright field and fluorescence microscopic images of DiI-droplet. (B) The size distribution of DiI-droplet measured by a coulter counter (Multisizer 3, Beckman Coulter, Miami FL, USA). (C) The acoustic vaporization threshold of DiI-droplet with different size.



Supplemental Figure S2. (A) The process of vesicles generated from DiI-droplet with ultrasound sonication acquired by high-speed fluorescence microscopic system. (B) The size distribution of DiI-droplet measured by DLS. (C) The structure of DiI-droplet released vesicle imaged by TEM.



Supplemental Figure S3. The initial scatter plot of different cellular responses.