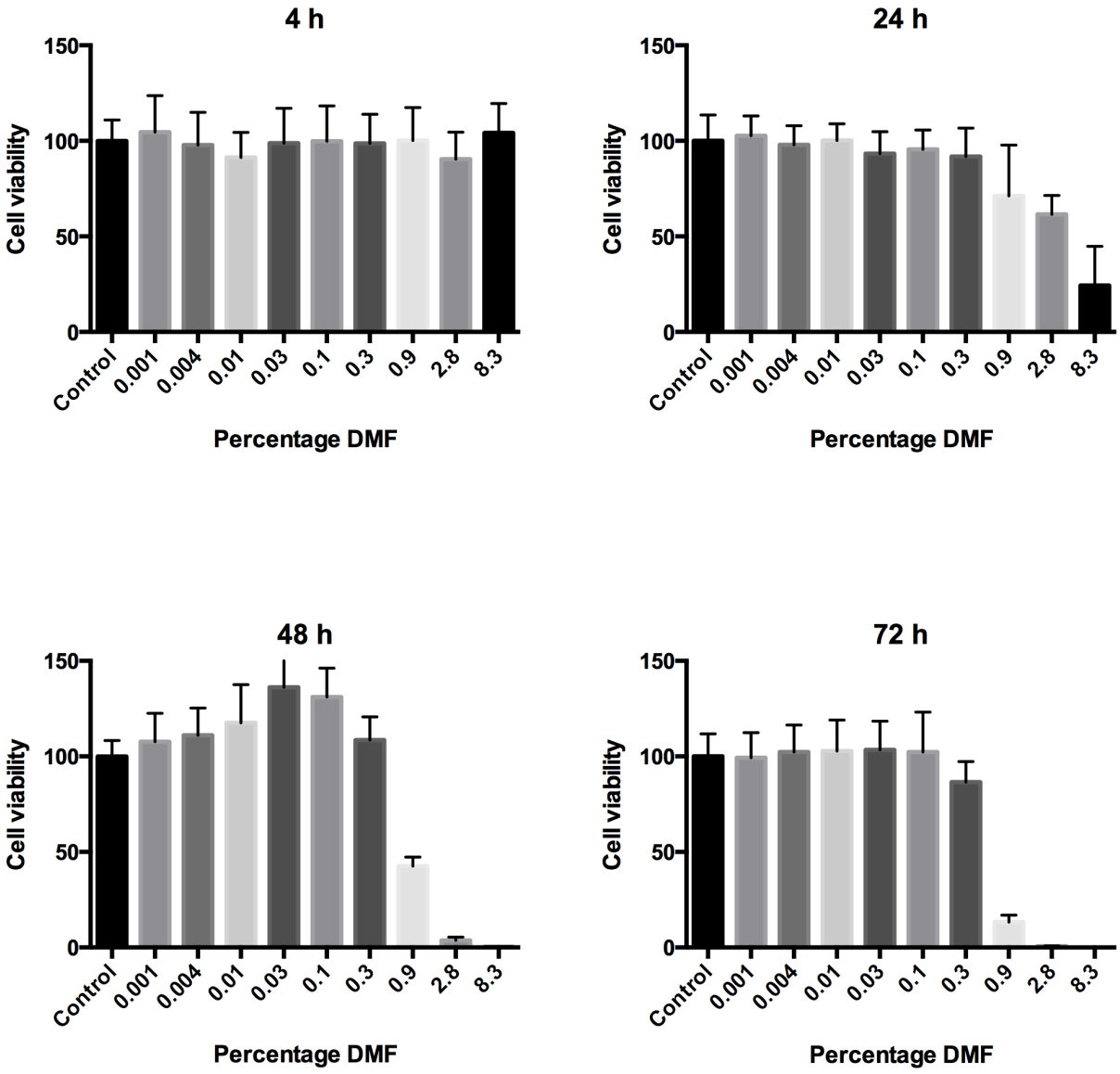
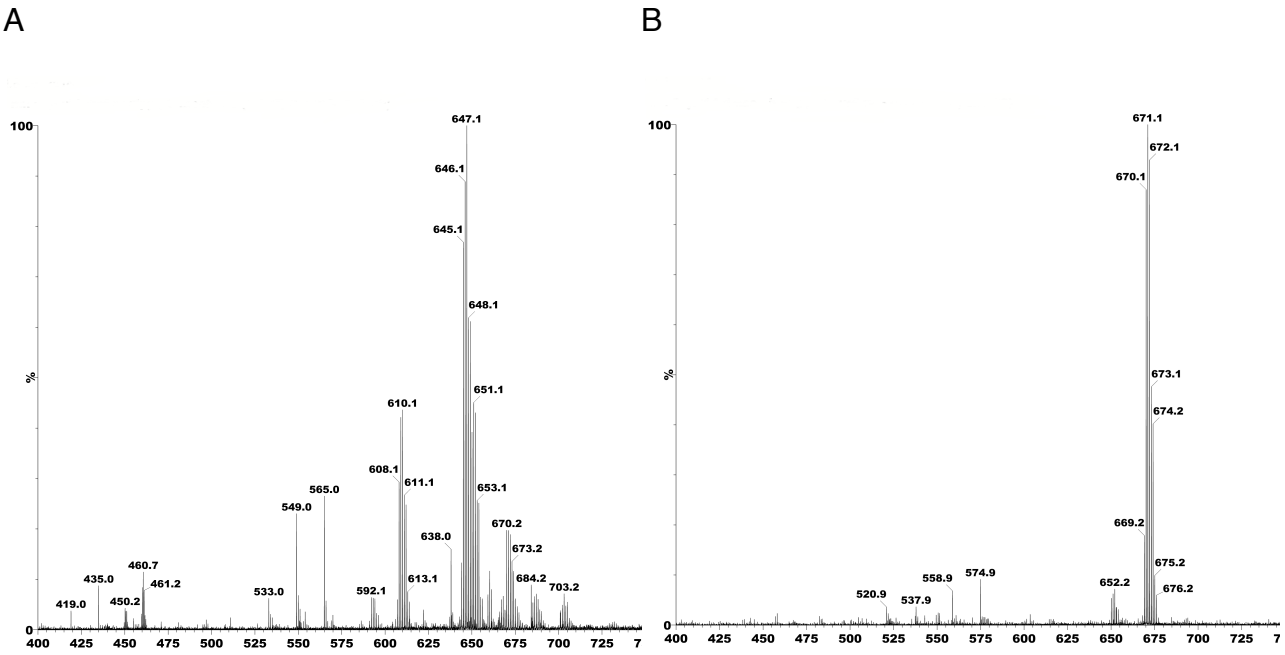


Supplementary Figure S1

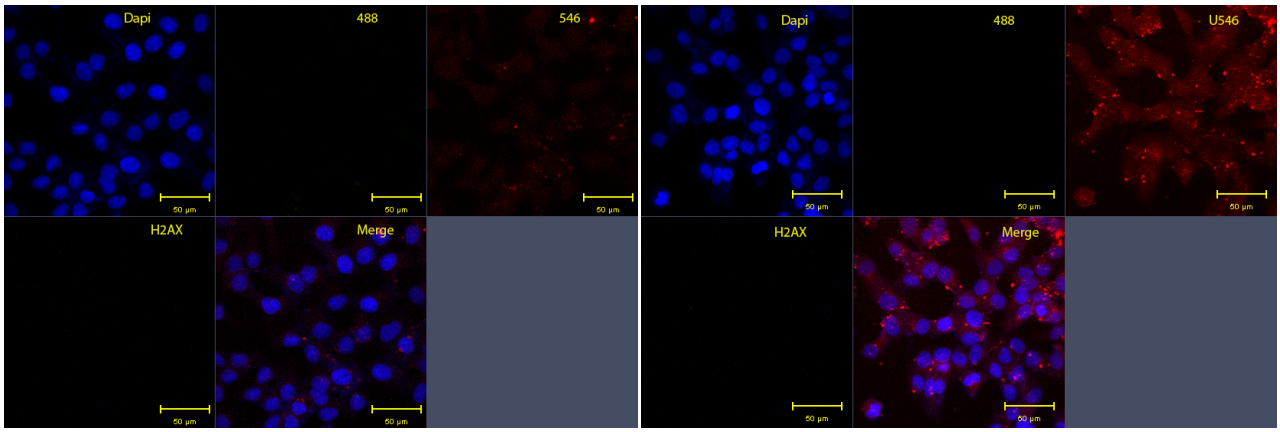
Cytotoxicity of DMF towards KB-3-1 cells at 4, 24, 48, and 72 hours, determined by CellTiter-Glo cytotoxicity assay.



Supplementary Figure S2

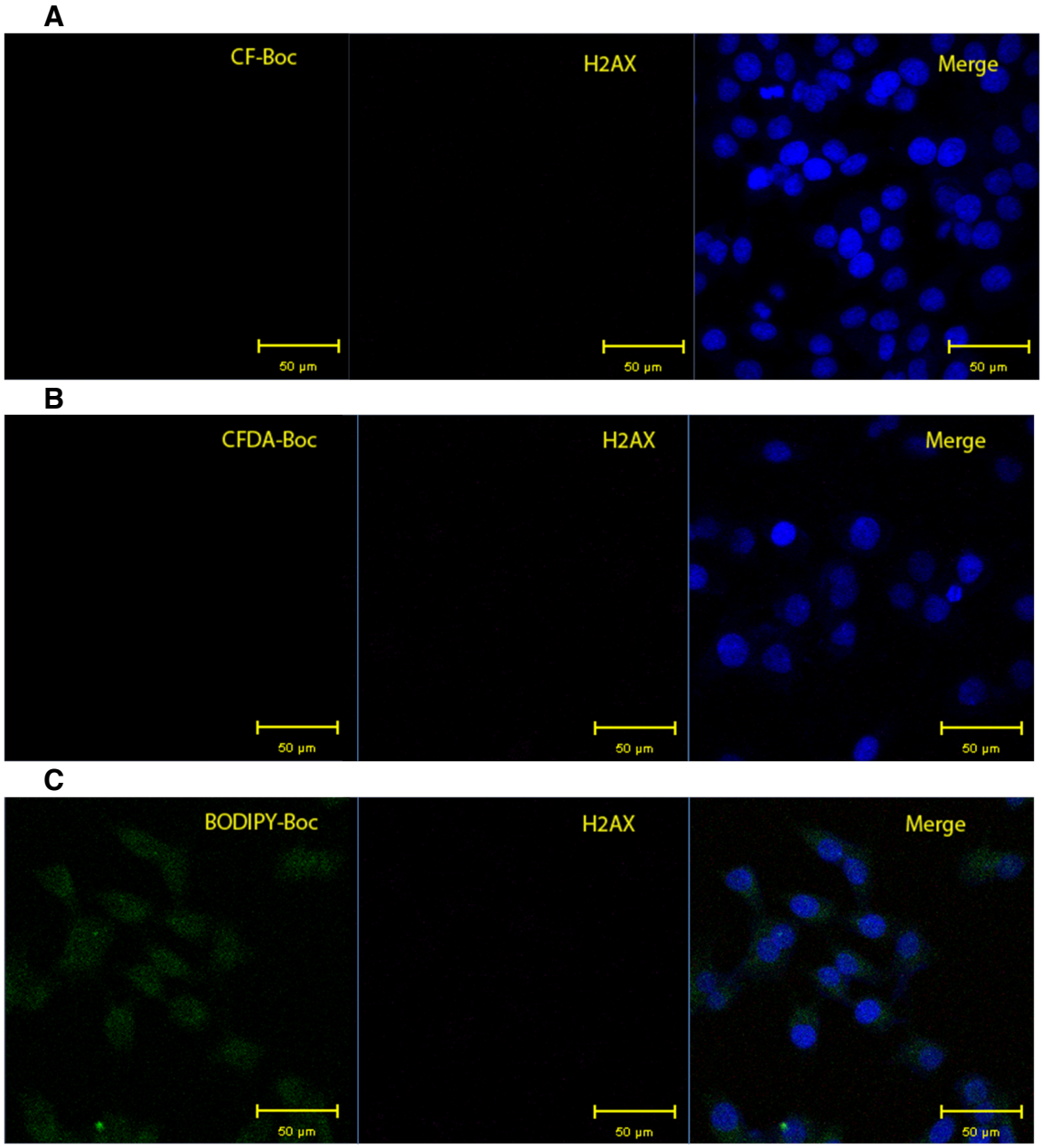
ESI mass spectra of Pt-Boc in **(A)** DMF and **(B)** DMSO. BODIPY-Pt was stored at a concentration of 10 μM after being kept at room temperature in the dark for 48 h.

A **B**



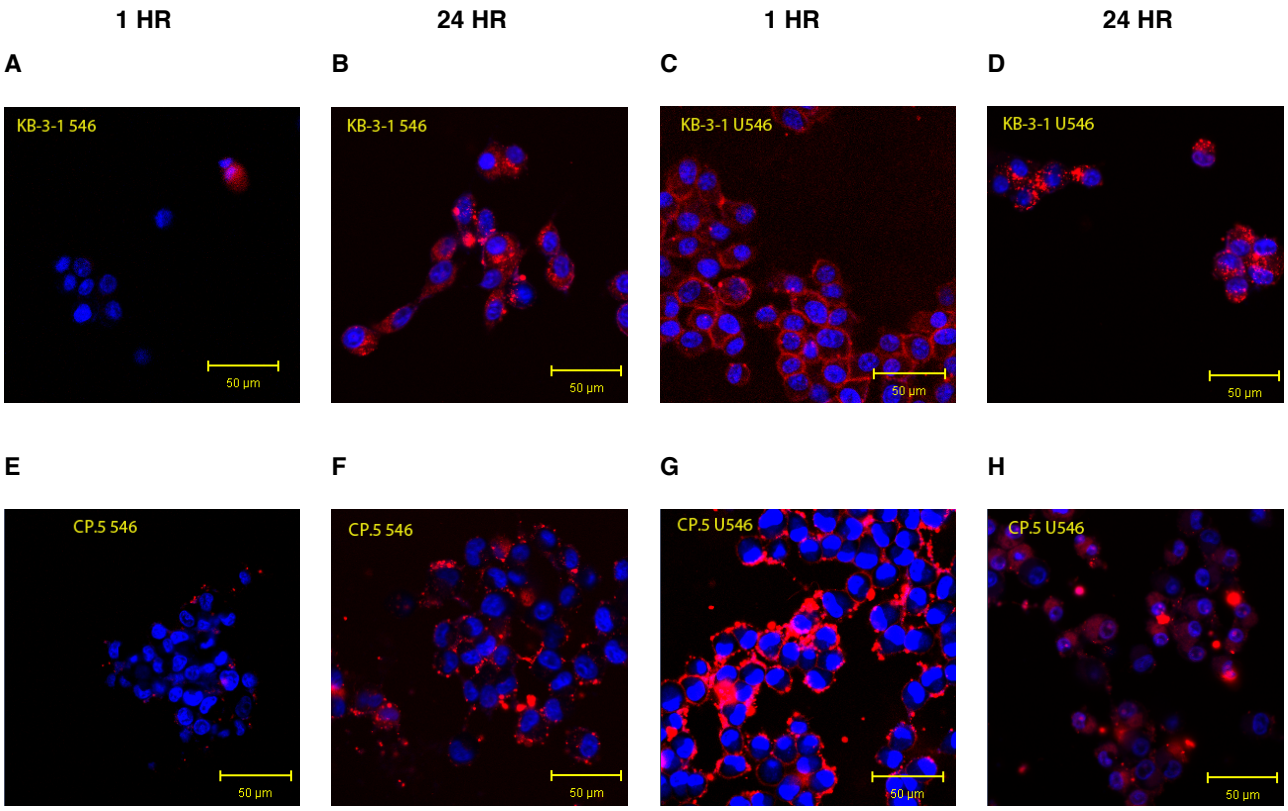
Supplementary Figure S3

Assessment of the ability of dyes and platinum-dye conjugates to elicit DNA damage in KB-3-1 cells. Fluorescent compounds are shown in **(A)** CFDA-Pt (100 µ M) and **(B)** U546 (100 µ M)**.** Each image shows the fluorescent compound (red), H2A.X (green), and a merge with the DAPI nuclear stain (blue).



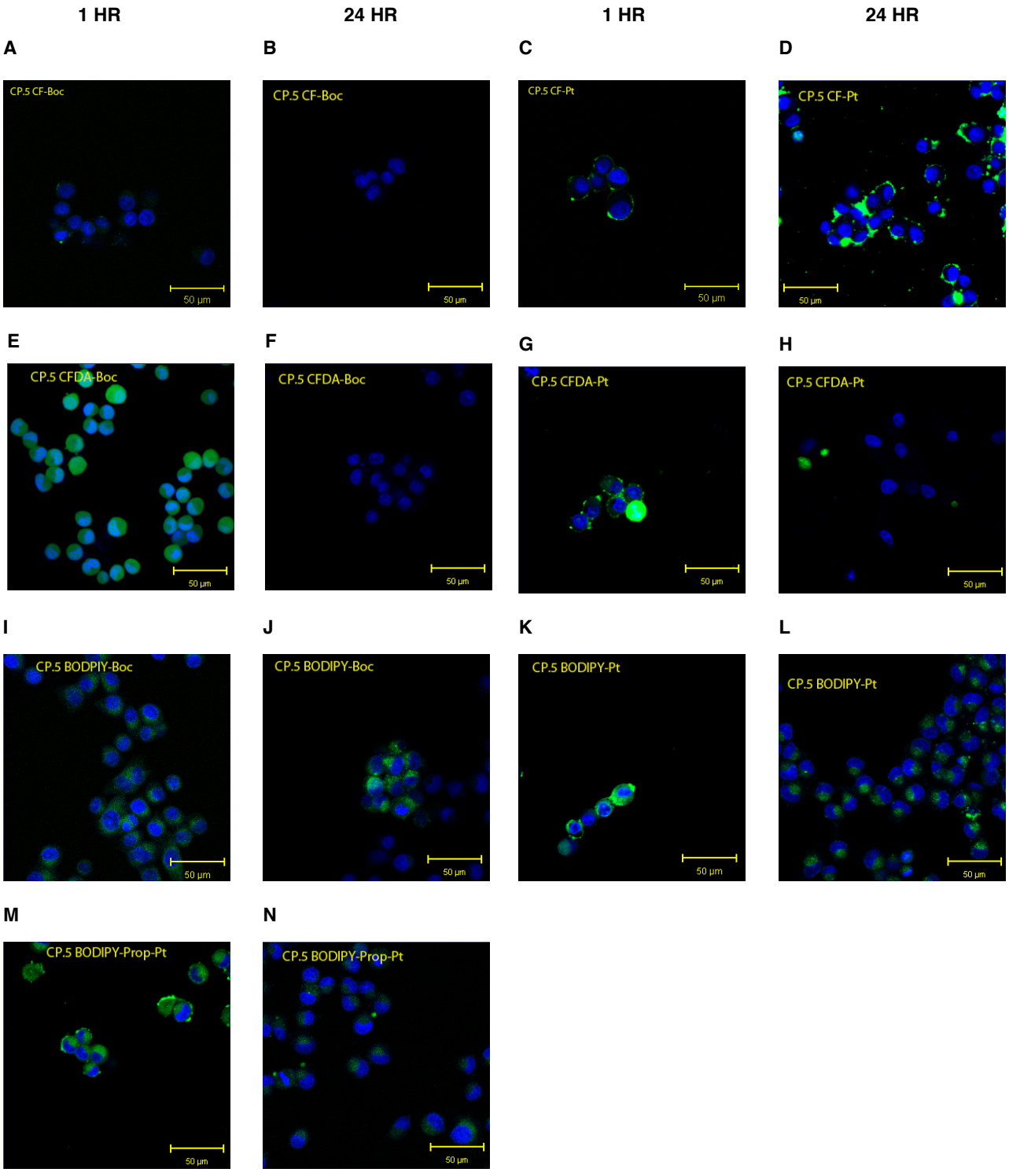
Supplementary Figure S4

Assessment of the ability of dyes and platinum-dye conjugates to elicit DNA damage. Fluorescent compounds are shown in **(A)** CF-Boc (100 µ M), **(B)** CFDA-Boc (100 µ M)**,** and **(C)** BODIPY-Boc (100 µM). Each image shows the fluorescent compound (green), H2A.X (magenta), and a merge with the Dapi nuclear stain (blue).



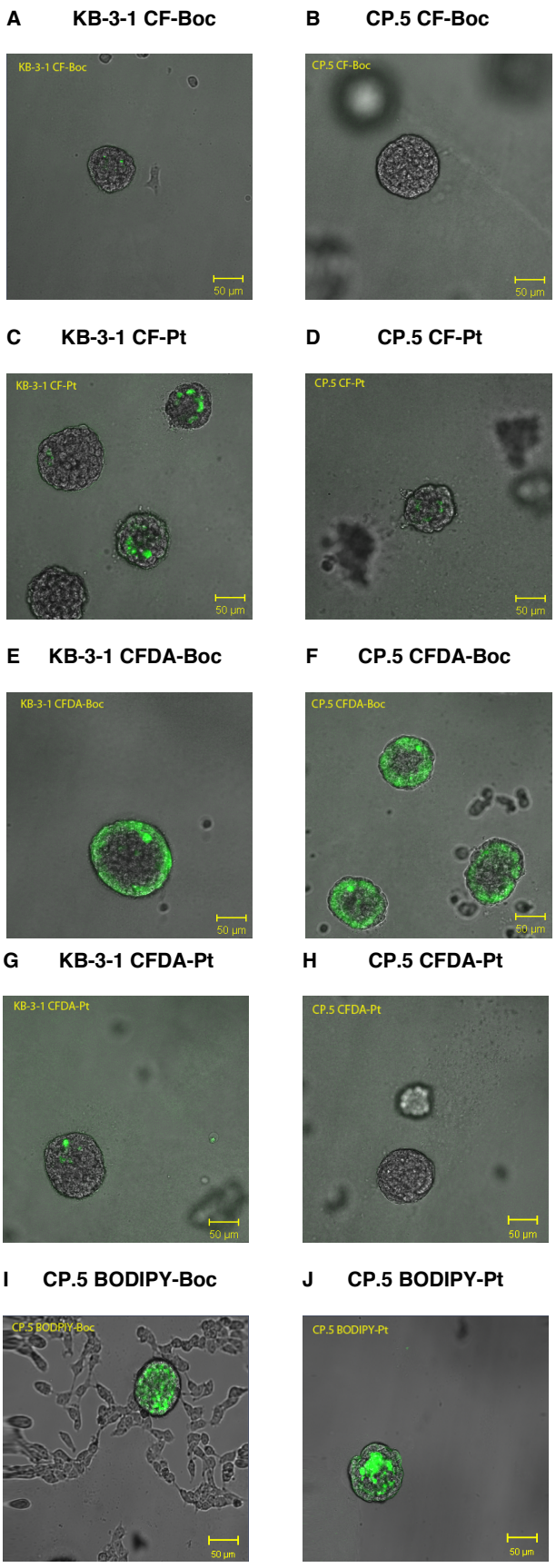
Supplementary Figure S5

Confocal images of live KB-3-1 and CP.5 cells in culture after incubation with dye or dye-platinum conjugate at 10 µM for either 1 h or 24 h: **(A)**KB-3-1 546 1 h, **(B)** KB-3-1 546 24 h, **(C)** KB-3-1 U546 1 h, **(D)**KB-3-1 U546 24 h, **(E)**CP.5 546 1 h, **(F)** CP.5 546 24 h, **(G)** CP.5 U546 1 h, and **(H)**CP.5 U546 24 h, Each image represents a merge of the Hoechst nuclear stain (1 µg/mL blue) and the fluorescent compound (red).



Supplementary Figure S6

Confocal images of live CP.5 cells in culture after incubation with dye or dye-platinum conjugate at 10 µM for either 1 h or 24 h: **(A)** CF-Boc 1 h, **(B)** CF-Boc 24 h, **(C)** CF-Pt 1 h, **(D)** CF-Pt 24 h, **(E)** CFDA-Boc 1 h, **(F)** CFDA-Boc 24 h, **(G)** CFDA-Pt 1 h, **(H)** CFDA-Pt 24 h, **(I)** BODIPY-Boc 1 h, **(J)** BODIPY-Boc 24 h, **(K)** BODIPY-Pt 1 h, **(L)** BODIPY-Pt 24 h, **(M)** BODIPY-Prop-Pt 1 h, and **(N)** BODIPY-Prop-Pt 24 h. Each image represents a merge of the Hoechst nuclear stain (1 µg/mL blue) and the fluorescent compound (green).



Supplementary Figure S7

Confocal images of live KB-3-1 and CP.5 cells in three dimensional culture after incubation with respective dye or dye-platinum conjugate for 1h at a concentration of 10 µM. **(A)** KB-3-1 CF-Boc, **(B)** CP.5 CF-Boc, **(C)** KB-3-1 CF-Pt, **(D)** CP.5 CF-Pt, **(E)** KB-3-1 CFDA-Boc, **(F)** CP.5 CFDA-Boc, **(G)** KB-3-1 CFDA-Pt, **(H)** CP.5 CFDA-Pt, **(I)** CP.5 BODIPY-Boc, and **(J)** CP.5 BODIPY-Pt. The optical slice of each image is 4.0 µM. Each image represents the fluorescent dye or dye-platinum compound (green) merged with the bright field image