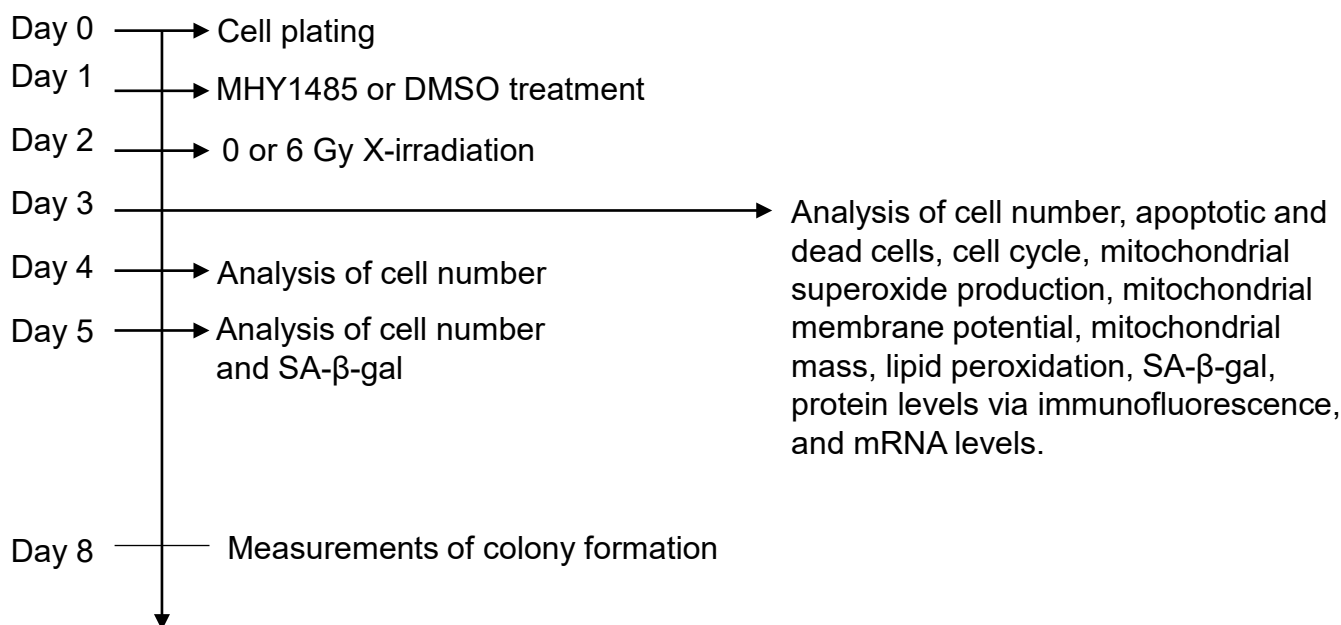
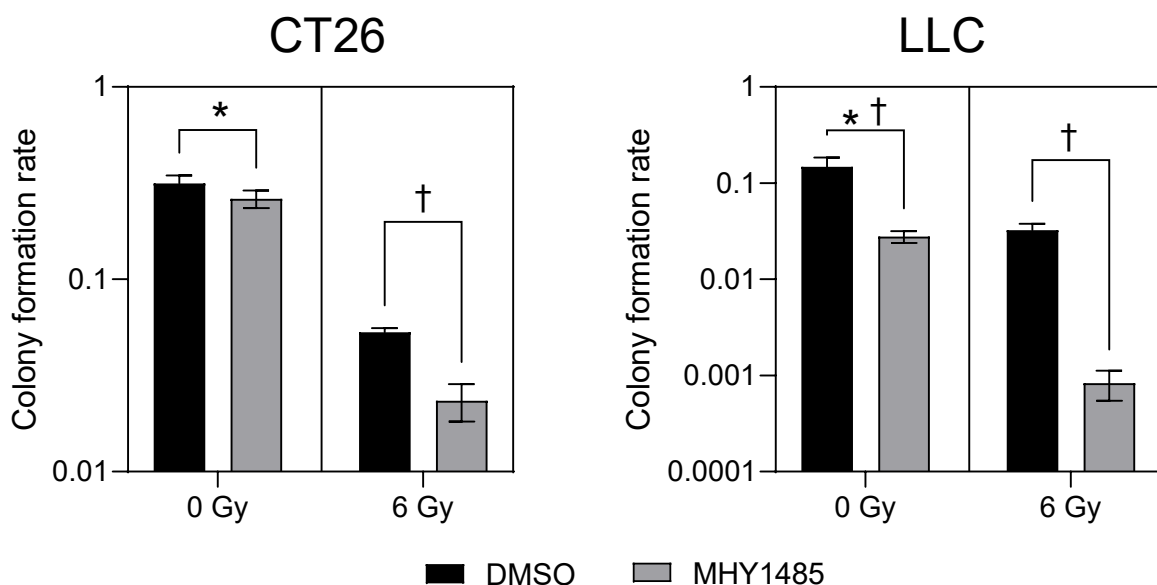


Supplementary Data 1

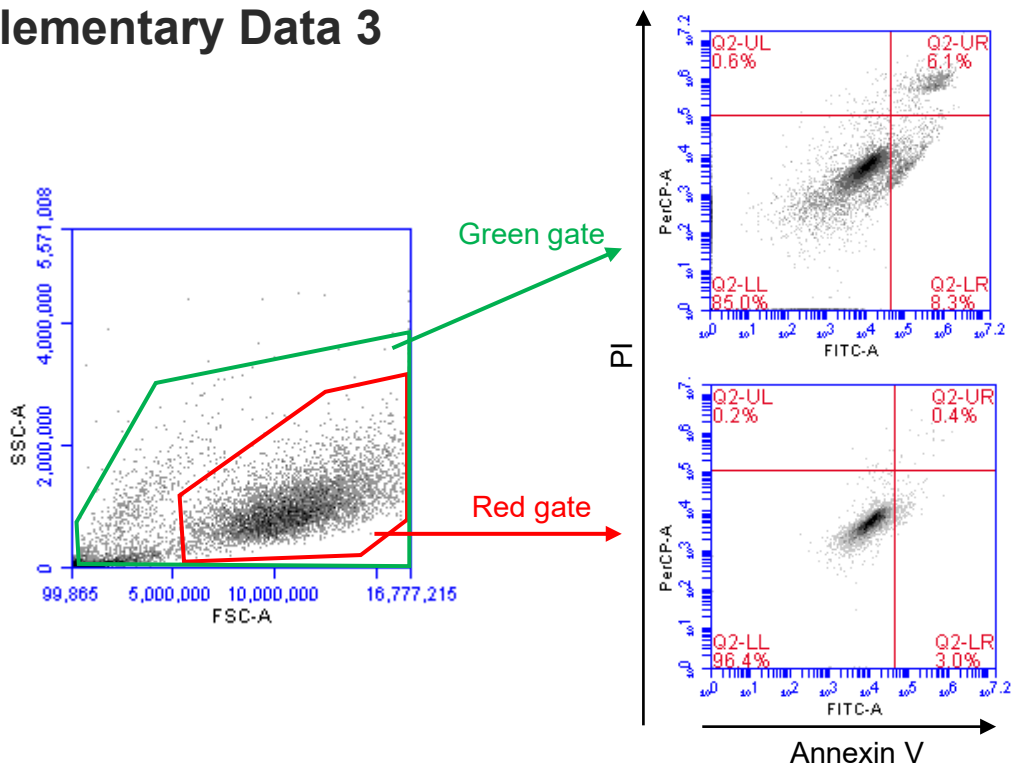


Supplementary Data 2



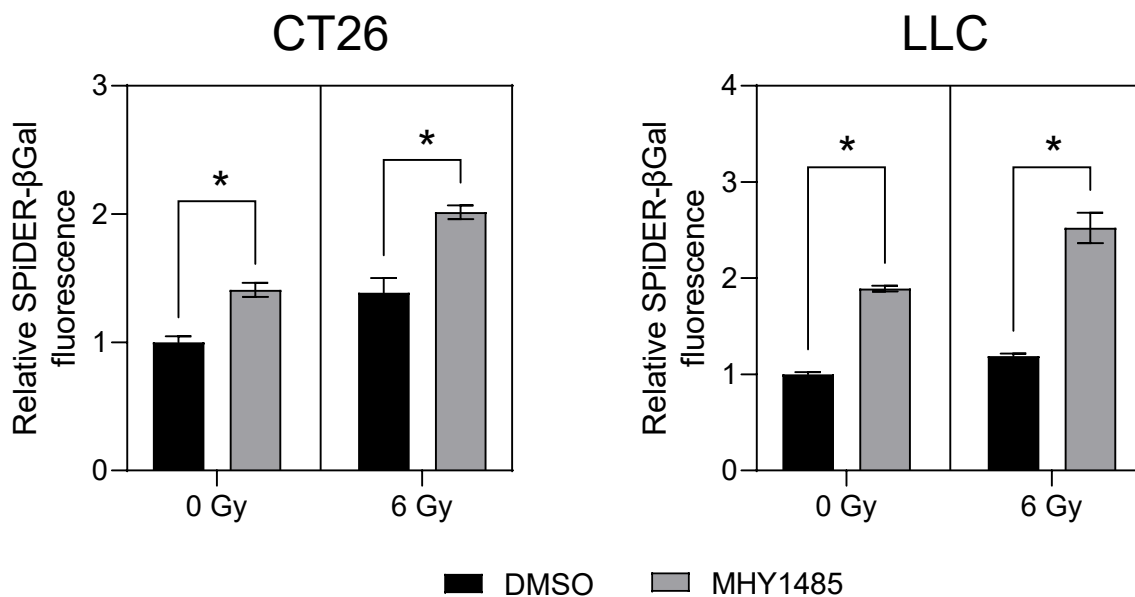
Supplementary Data 2. Colony formation rate. All quantitative data are presented as mean \pm SD (n = 3). * p<0.05, two-way ANOVA with post hoc Sidak's multiple comparisons test vs. respective DMSO control. † p<0.05, two-tailed Student's t test vs. respective DMSO control.

Supplementary Data 3



Supplementary Data 3. Gating of FSC-SSC panel in live cell staining. For apoptosis analysis (annexin V and JC-1), the green gate was set to include all cells. For senescence analysis (SPiDER- β Gal, MitoBright, MitoSOX, and Liperfluo), the gate was used to excluding annexin V- and PI-positive cells.

Supplementary Data 4



Supplementary Data 4. Relative senescence-associated β -galactosidase levels on Day 5. All quantitative data are presented as mean \pm SD (n = 3). * p < 0.05, two-way ANOVA with post hoc Sidak's multiple comparisons test vs. respective DMSO control.

Supplementary Data 5

Representative profiles of flow cytometry

(Red line indicates peak in 0 Gy + DMSO groups.)

p-mTOR

p-4E-BP1

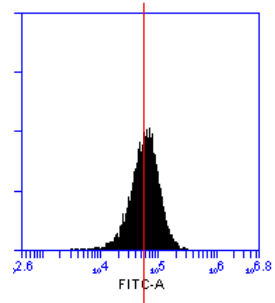
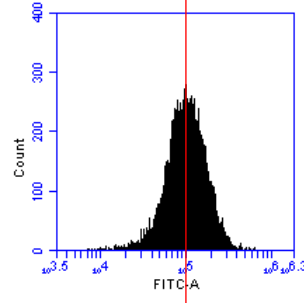
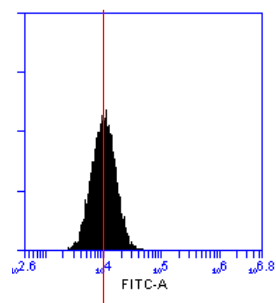
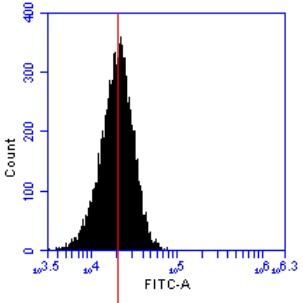
CT26

LLC

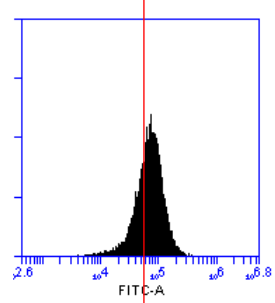
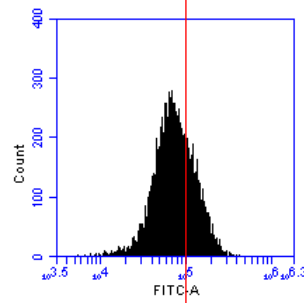
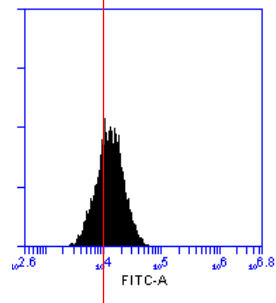
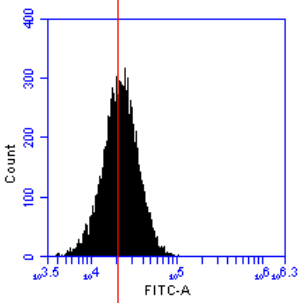
CT26

LLC

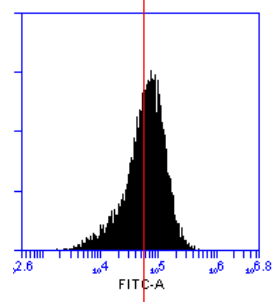
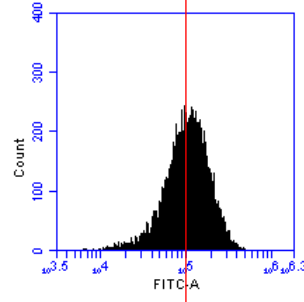
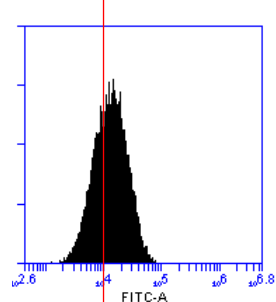
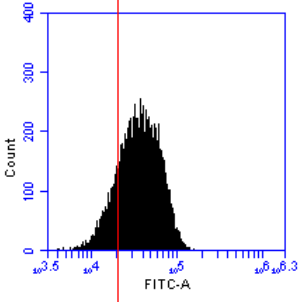
0 Gy
+ DMSO



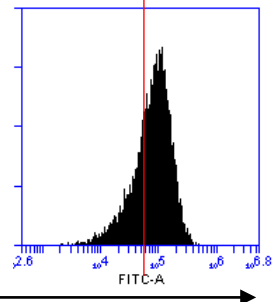
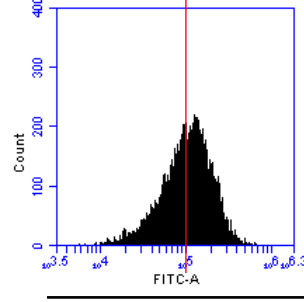
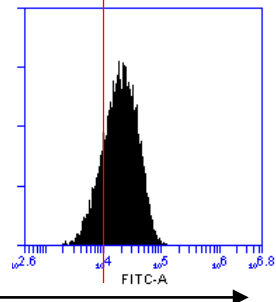
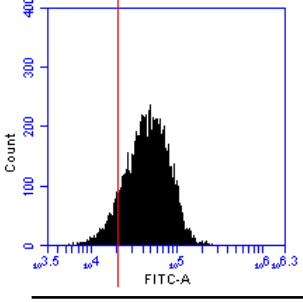
0 Gy
+ MHY1485



6 Gy
+ DMSO



6 Gy
+ MHY1485



Fluorescence →

Fluorescence →

p-S6

p-Akt

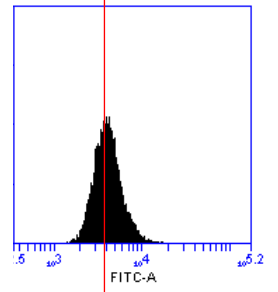
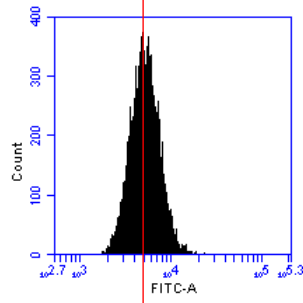
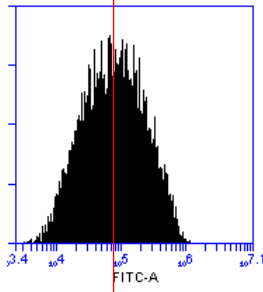
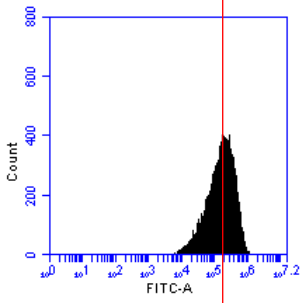
CT26

LLC

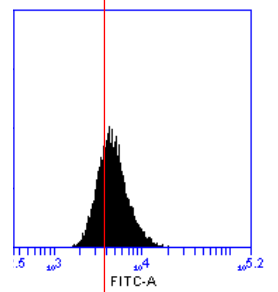
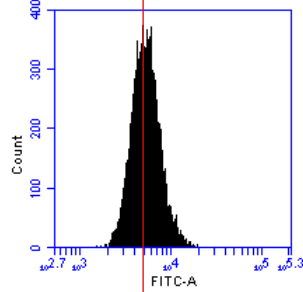
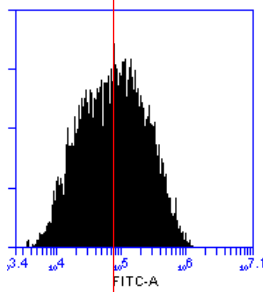
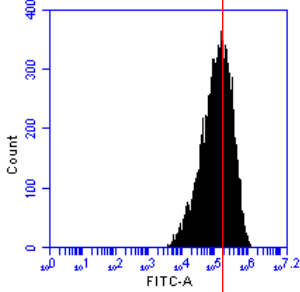
CT26

LLC

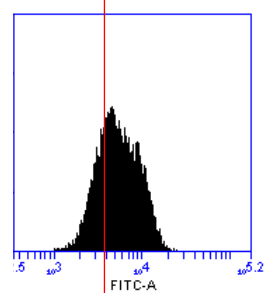
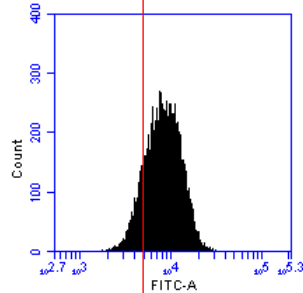
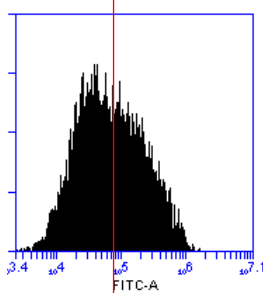
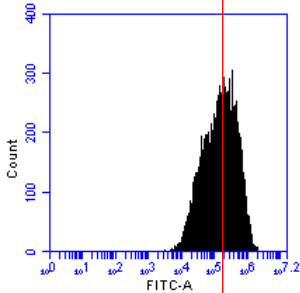
0 Gy
+ DMSO



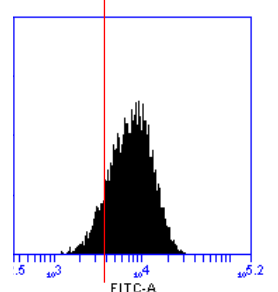
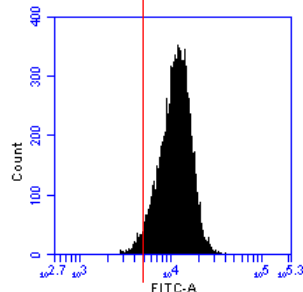
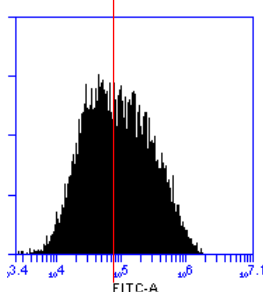
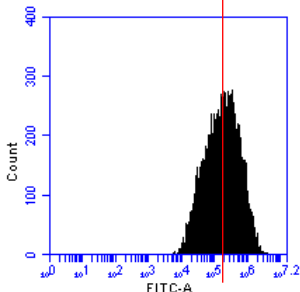
0 Gy
+ MHY1485



6 Gy
+ DMSO



6 Gy
+ MHY1485



Fluorescence

Fluorescence

Annexin V and PI staining

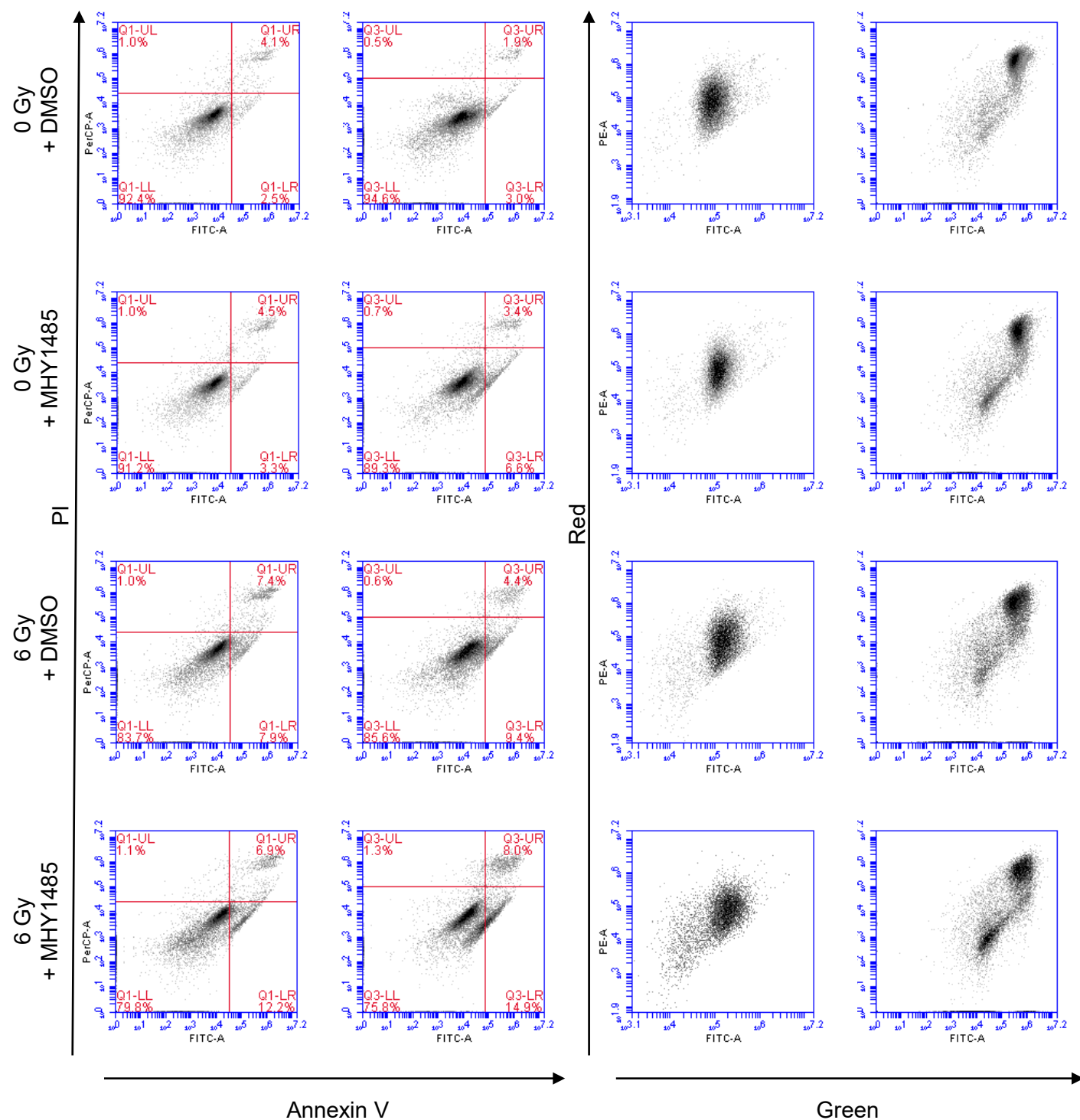
JC-1 staining

CT26

LLC

CT26

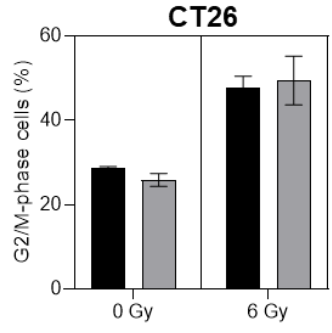
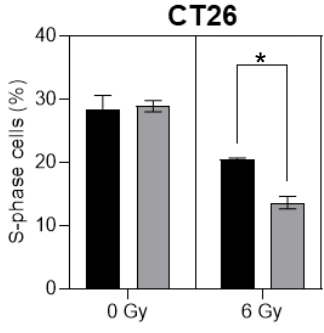
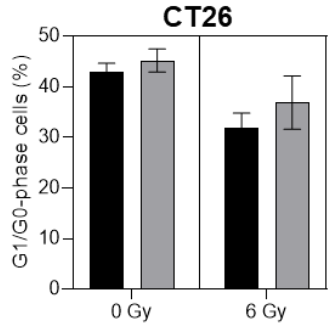
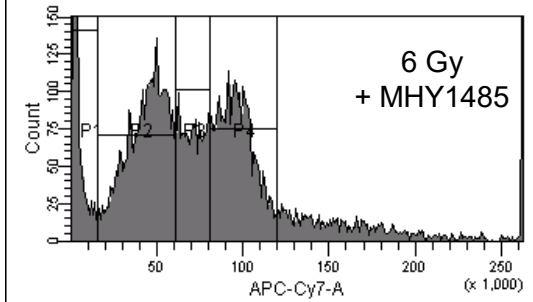
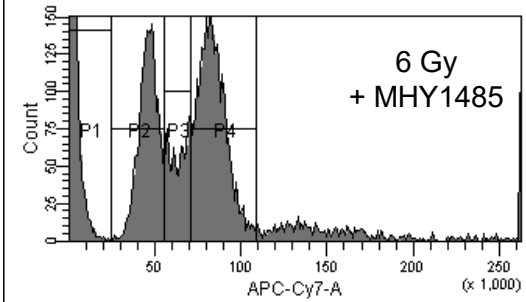
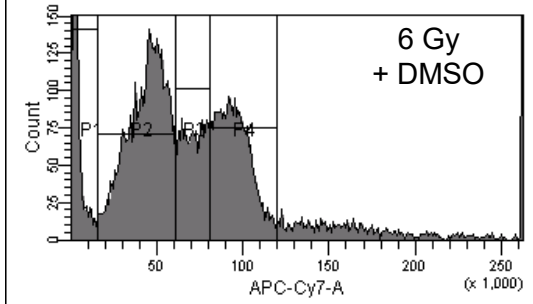
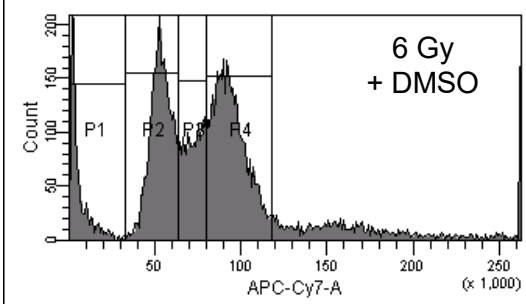
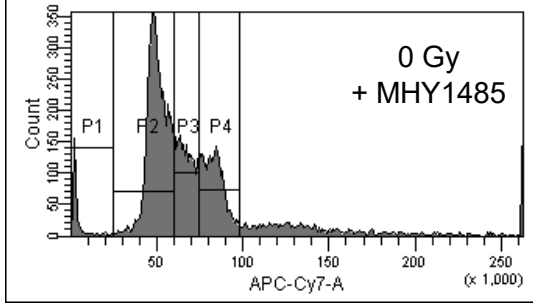
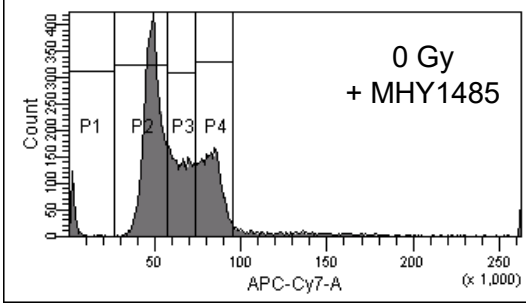
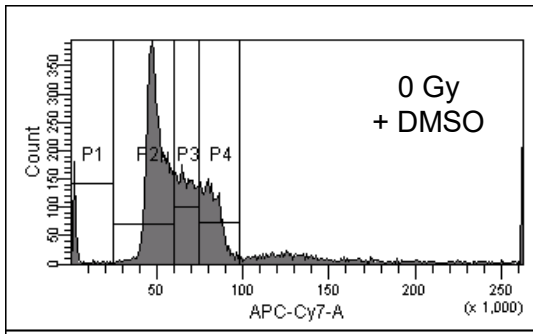
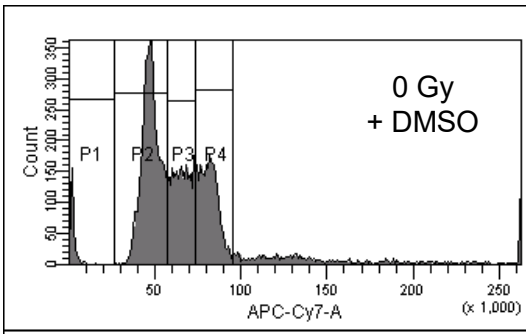
LLC



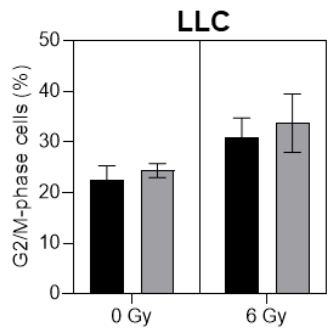
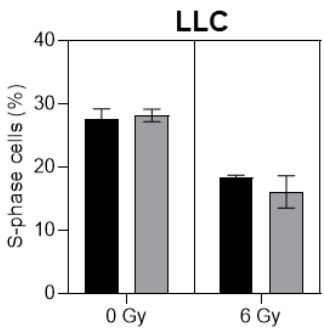
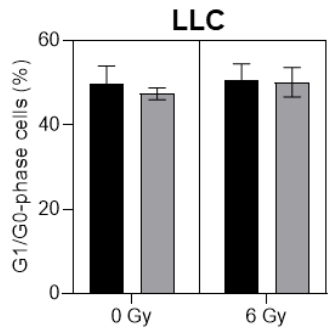
Cell Cycle

CT26

LLC



DMSO
 MHY1485



The quantitative data are presented as mean \pm SD (n = 3). * p<0.05, two-way ANOVA with post hoc Sidak's multiple comparisons test vs. respective DMSO control.

SA- β -gal
(24h after irradiation)

SA- β -gal
(72h after irradiation)

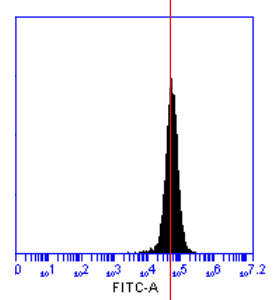
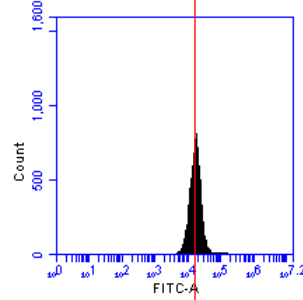
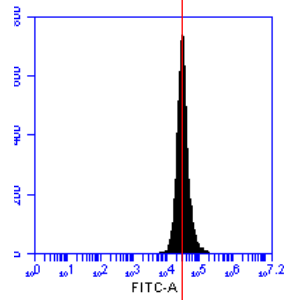
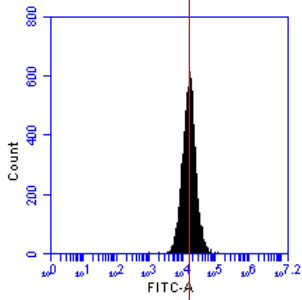
CT26

LLC

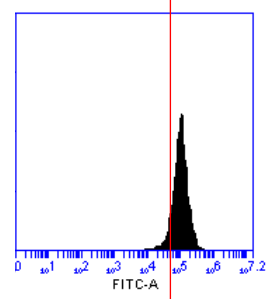
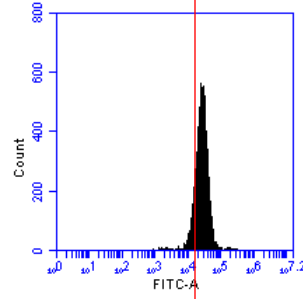
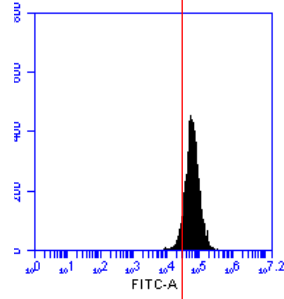
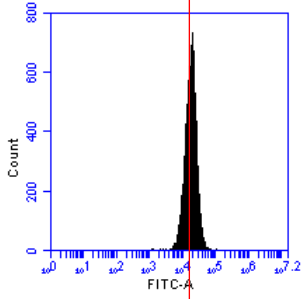
CT26

LLC

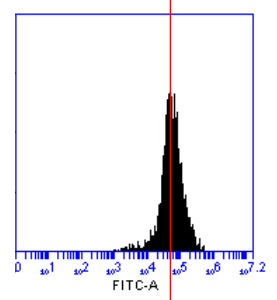
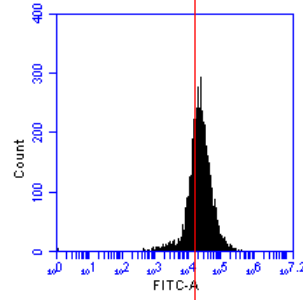
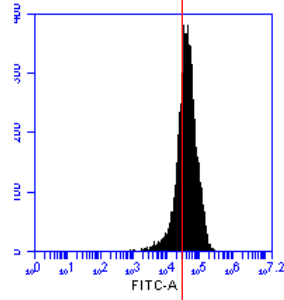
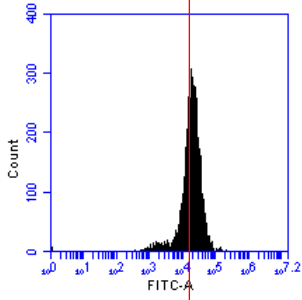
0 Gy
+ DMSO



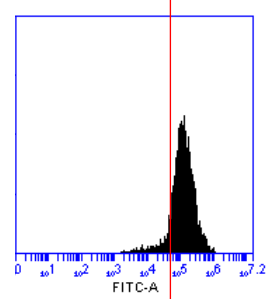
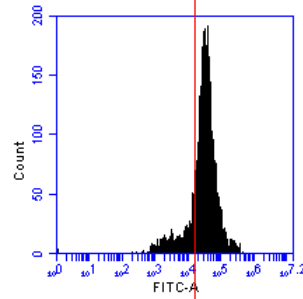
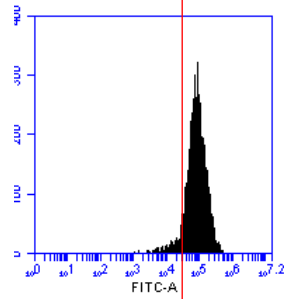
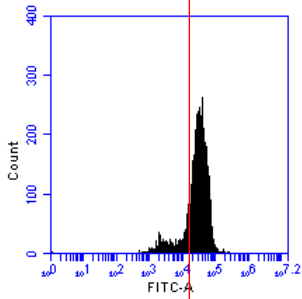
0 Gy
+ MHY1485



6 Gy
+ DMSO



6 Gy
+ MHY1485



SPiDER- β Gal

SPiDER- β Gal

Mitochondria volume

Mitochondria superoxide

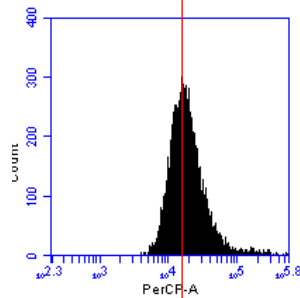
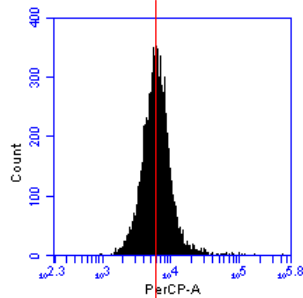
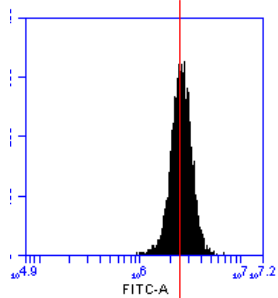
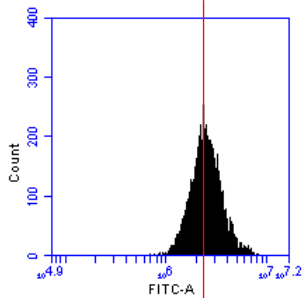
CT26

LLC

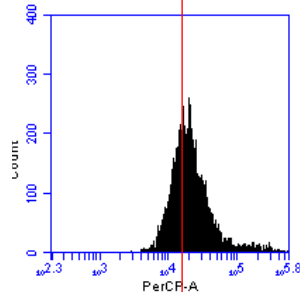
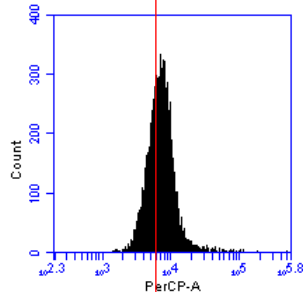
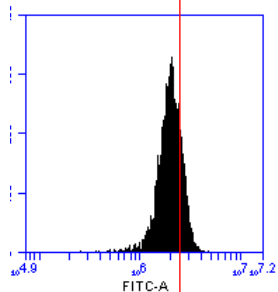
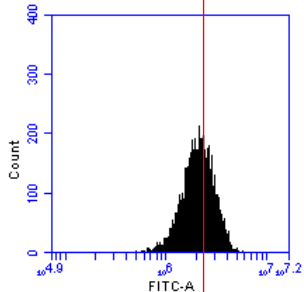
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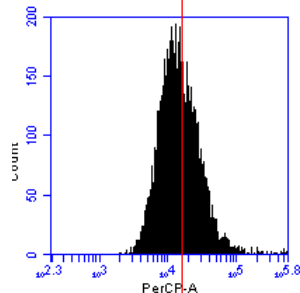
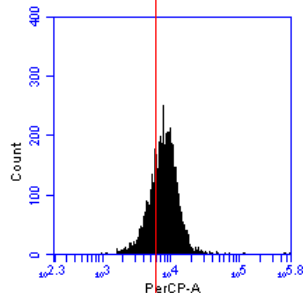
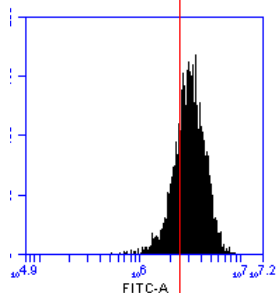
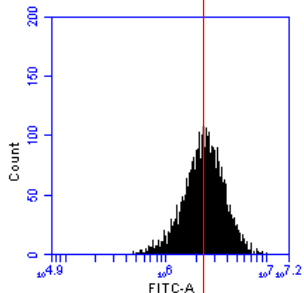
0 Gy
+ DMSO



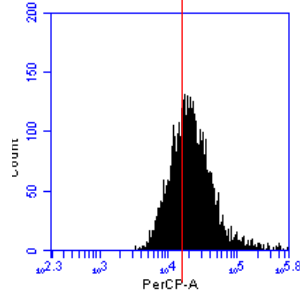
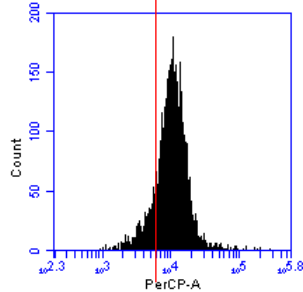
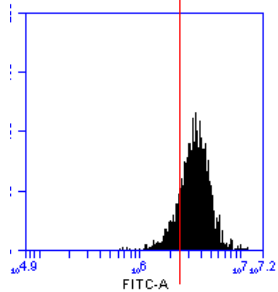
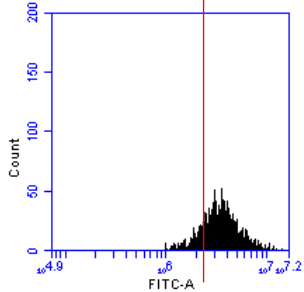
0 Gy
+ MHY1485



6 Gy
+ DMSO



6 Gy
+ MHY1485



MitoBright

MitoSOX

Lipid peroxide

p21

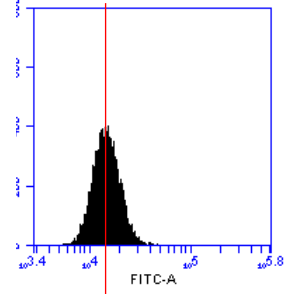
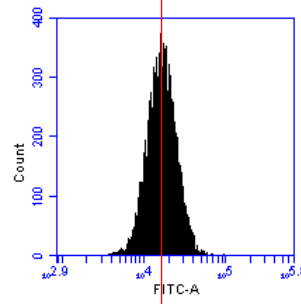
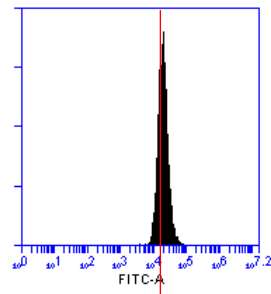
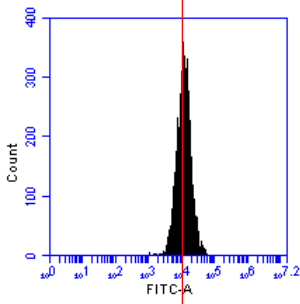
CT26

LLC

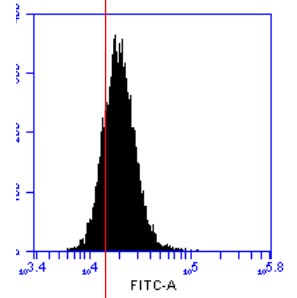
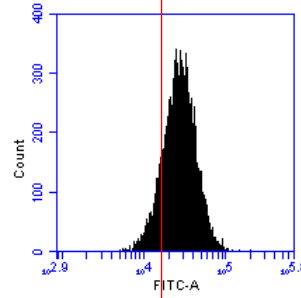
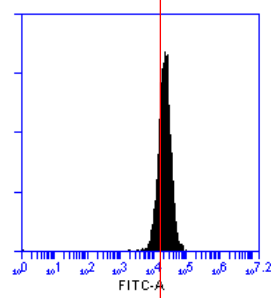
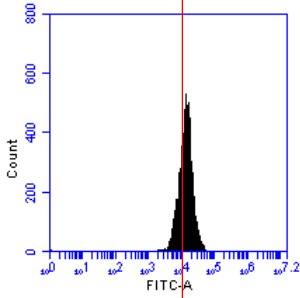
CT26

LLC

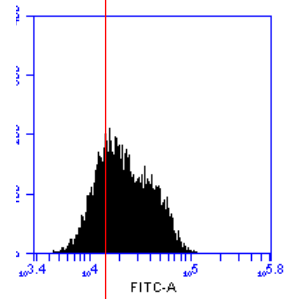
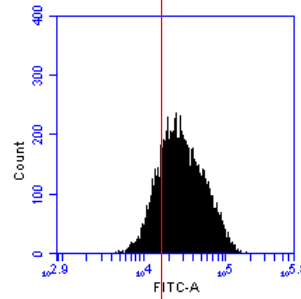
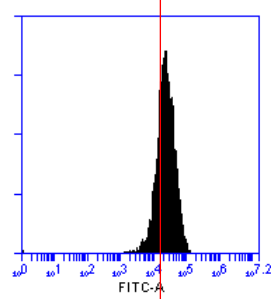
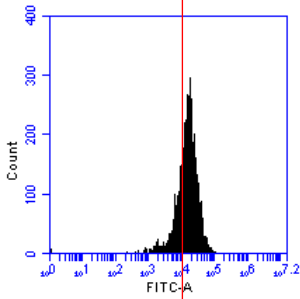
0 Gy
+ DMSO



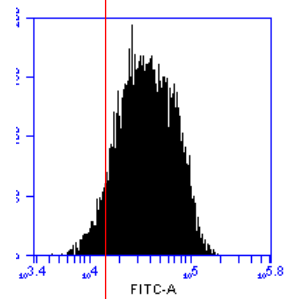
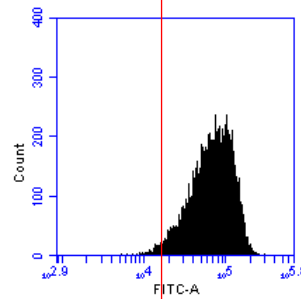
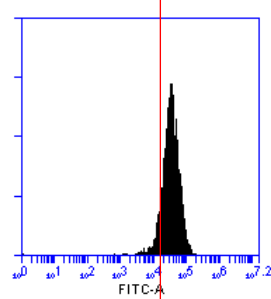
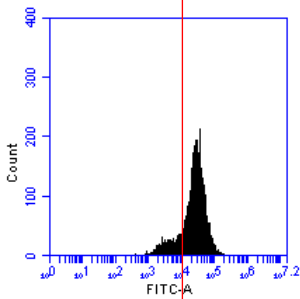
0 Gy
+ MHY1485



6 Gy
+ DMSO



6 Gy
+ MHY1485



Liperfluor

Fluorescence

CHOP

BiP

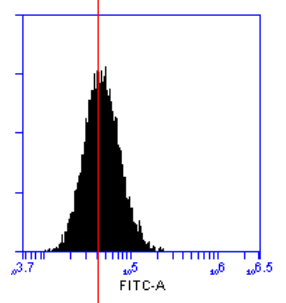
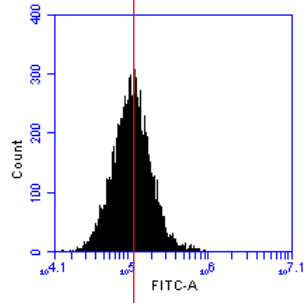
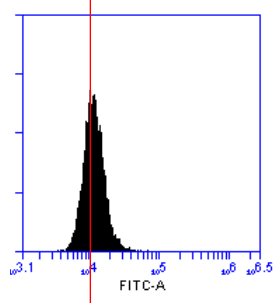
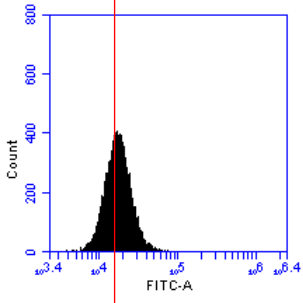
CT26

LLC

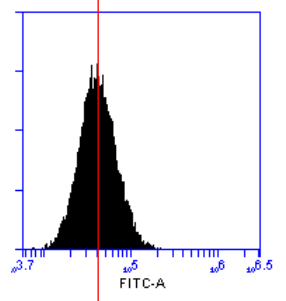
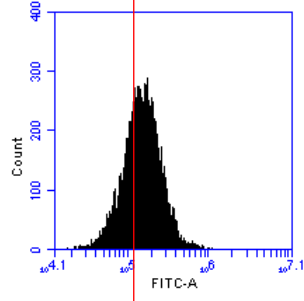
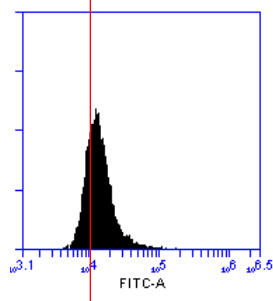
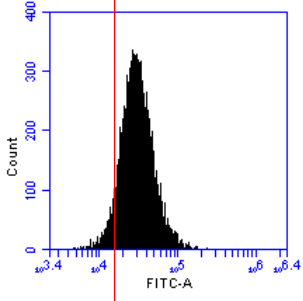
CT26

LLC

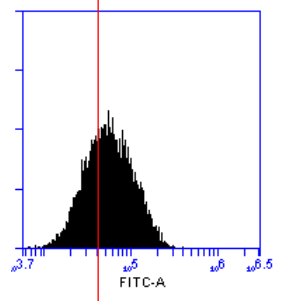
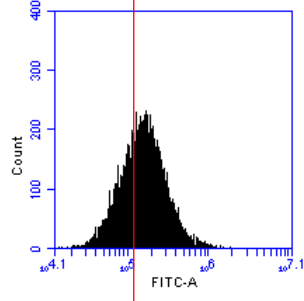
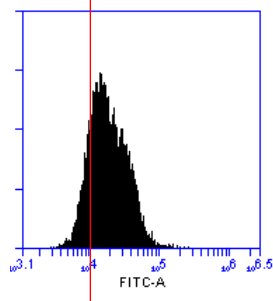
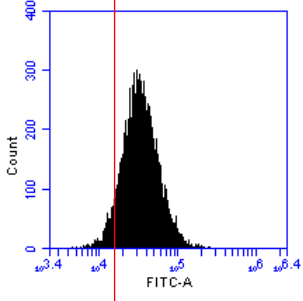
0 Gy
+ DMSO



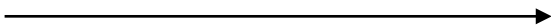
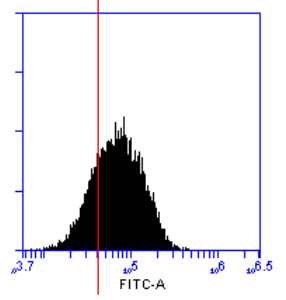
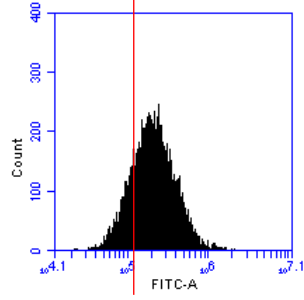
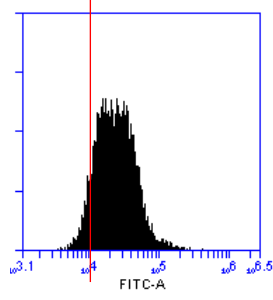
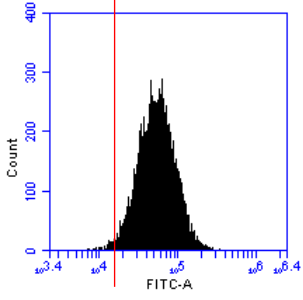
0 Gy
+ MHY1485



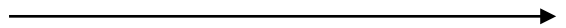
6 Gy
+ DMSO



6 Gy
+ MHY1485



Fluorescence



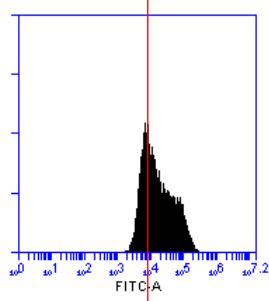
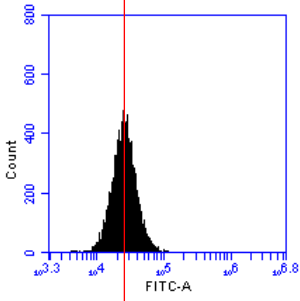
Fluorescence

p-JNK

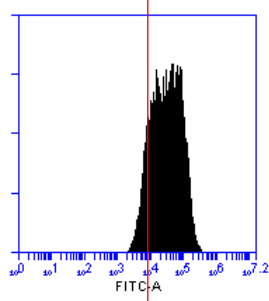
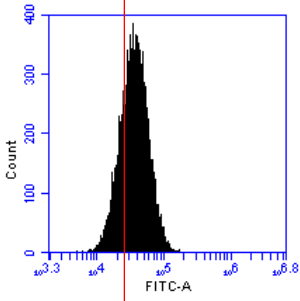
CT26

LLC

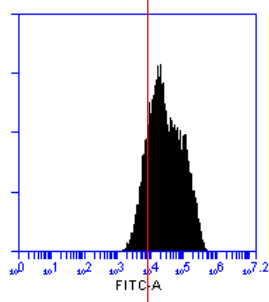
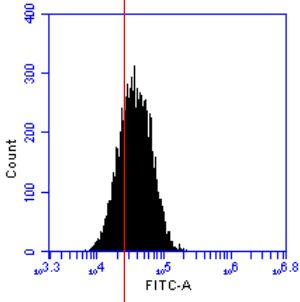
0 Gy
+ DMSO



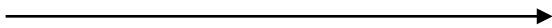
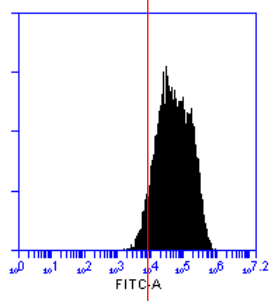
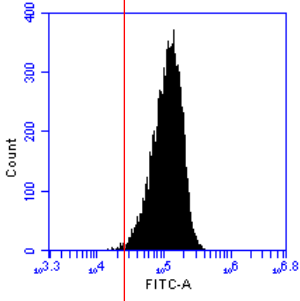
0 Gy
+ MHY1485



6 Gy
+ DMSO



6 Gy
+ MHY1485



Fluorescence