

SUPPORTING INFORMATION

Mitochondria-targeted Triphenylamine Derivatives Activatable by Two-Photon Excitation for Triggering and Imaging Cell Apoptosis

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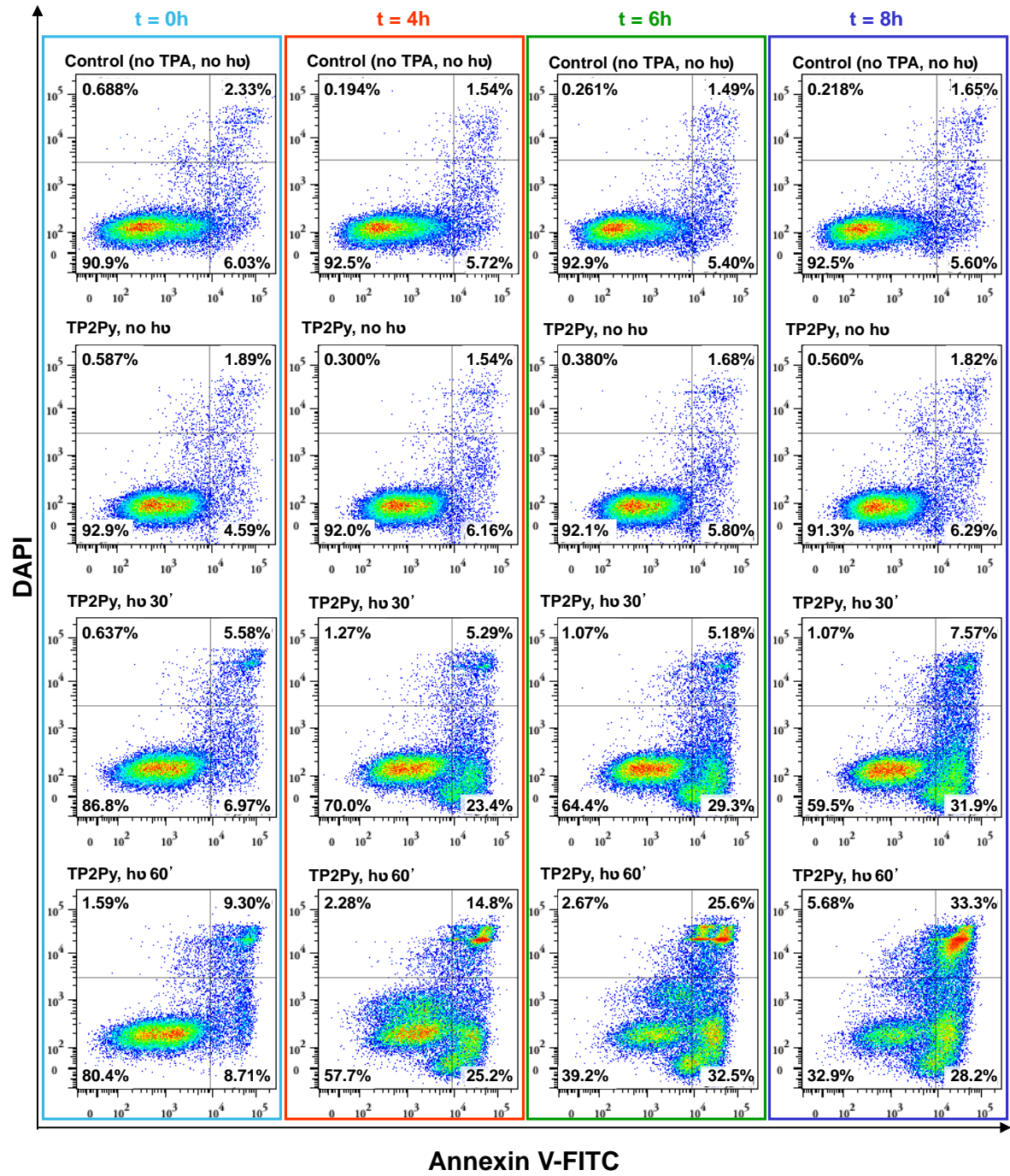
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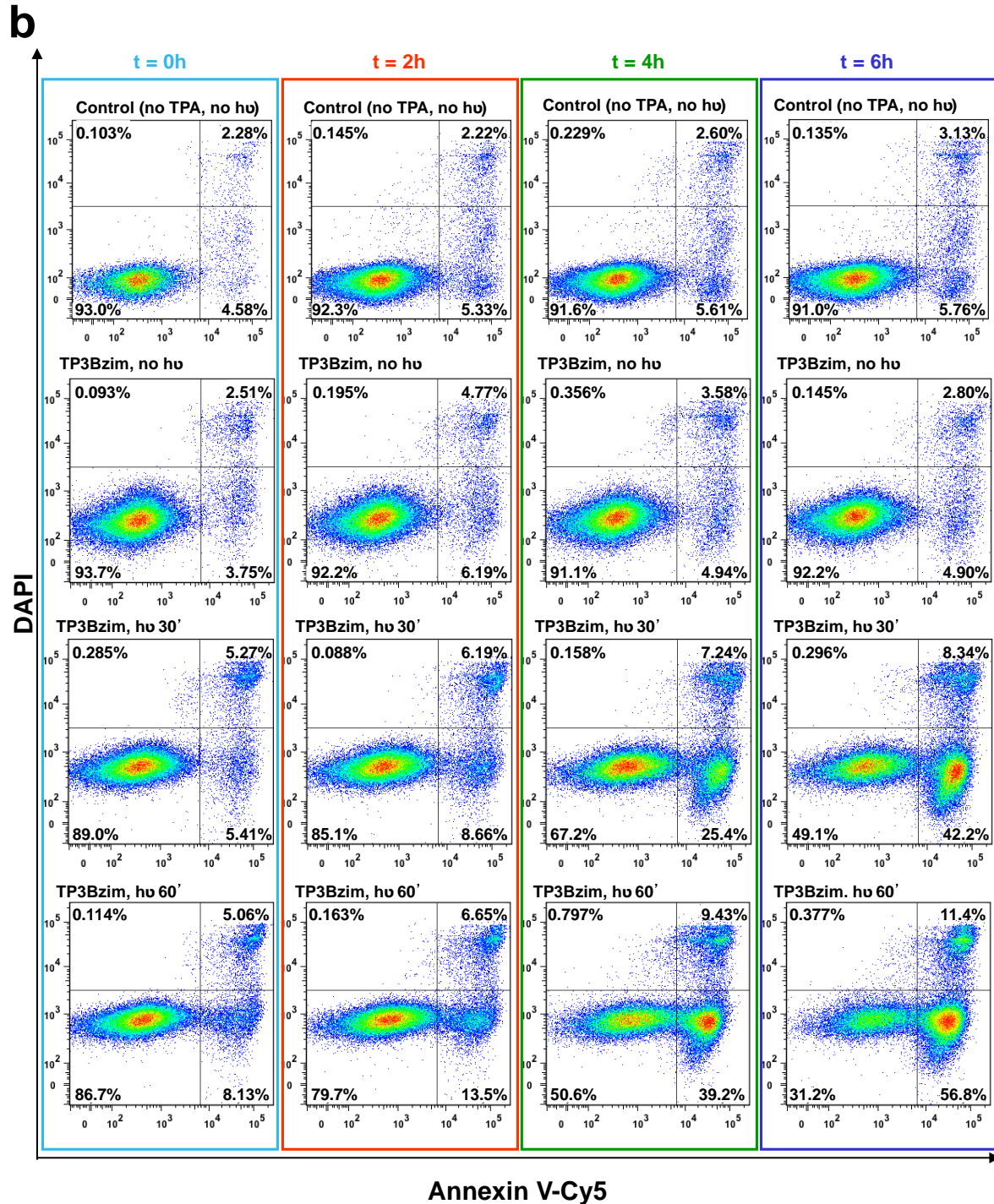


Figure S1. Flow cytometric analysis of Annexin V/DAPI staining of TPA-treated Jurkat cells. Jurkat cells were pre-incubated with 2 μ M TP2Py (a) or TP3Bzim (b) for 2h in the dark at 37°C and subjected to light illumination for either 30 min (3rd line) or 60 min (4th line) at 452 nm (17 mW/cm²). After light exposure, cells were either immediately (t=0; light blue) treated for Annexin V/DAPI staining or further incubated for various times in the dark at 37°C before Annexin V/DAPI treatment: a, t = 4h (red); t = 6h (green); t = 8h (dark blue); b, t = 2h (red); t = 4h (green); t = 6h (dark blue). 1st line: untreated control cells (without TPA, without light illumination). 2nd line: TPA-treated control cells (without light illumination). Annexin V was labelled with FITC (panel a) or Cy5 (panel b). The horizontal and vertical axes correspond to fluorescence intensities of Annexin V-FITC/Cy5 and DAPI, respectively. The 2-D dot plots shown in panels a & b are representative of three independent experiments.

Table S1: Times of illumination required for the observation of cellular events upon two-photon excitation of TP3Bzim at various wavelengths.

Two-photon excitation of TP3Bzim^a					
	740 nm	760 nm	780 nm	800 nm	820 nm
Appearance of blebs	3 min	2.5 min	3 min	5 min	10 min
Beginning of the nuclear translocation	6 min	6 min	6 min	6 min	13 min
Nuclear staining (max)	18 min	9 min	13 min	11 min	21 min

^aIrradiance: 1.25 W/cm²

Table S2: Times of illumination required for the observation of cellular events upon two-photon excitation of TP2Py at various wavelengths.

Two-photon excitation of TP2Py^a				
	840 nm	860 nm	880 nm	900 nm
Appearance of blebs	19.5 min	10 min	9 min	nd ^b
Beginning of the nuclear translocation	21 min	10 min	12 min	nd ^b
Nuclear staining (max)	34.5 min	20 min	24 min	nd ^b

^aIrradiance: 1.25 W/cm². ^bnd: not determined due to photobleaching