

SUPPORTING INFORMATION

Membrane Order Effect onto the Photoresponse of Organic Transducer

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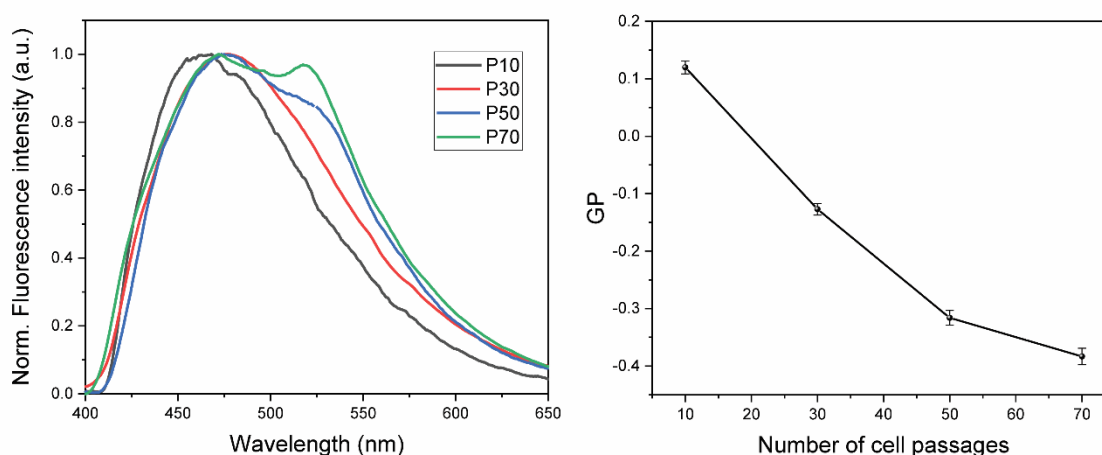


Figure S1. Laurdan Spectra evolution as a function of cell passage number. a) Laurdan emission spectra acquired in HEK-293T cells at a different passage number. b) Evolution of the extracted GP value as a function of cell passage number. Data are represented as mean \pm SD.

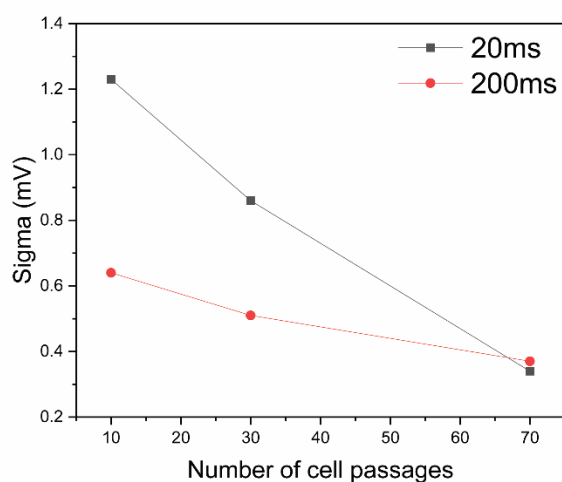


Figure S2. Standard deviation value of the cell membrane potential modulation as a function of the cell passage number. These values are reported as a results of 20ms (black line) and 200ms (red line) light pulses duration.

Table S1. Resulting values of the deconvolution process for 460nm component (I_B) and its standard deviation (σ_B) and for 510nm component (I_G) and its standard deviation (σ_G). GP and σ_{GP} value obtained by the previous parameters. All the values are extracted or calculated at different cell passage number.

	I_B	σ_B	I_G	σ_G	GP	σ_{GP}
P10	0,707	0,007	0,555	0,006	0,120	0,011
P30	0,538	0,006	0,695	0,005	-0,127	0,010
P50	0,443	0,008	0,853	0,005	-0,316	0,013
P70	0,391	0,008	0,876	0,006	-0,383	0,015

Table S2. Resulting values of the deconvolution process for 460nm component (I_B) and its and for 510nm component (I_G) obtained at 40°C. GP_{40° value was calculated by the previous parameters while GP_{20° was taken by Supporting Table 1. ΔGP and $\sigma_{\Delta G}$ was calculate as difference between GP calculated at 40°C and 22°C. All the values are extracted or calculated at different cell passage number.

	I_B	I_G	GP_{40°	GP_{22°	ΔGP	$\sigma_{\Delta GP}$
P10	0,465	0,538	-0,073	0,120	-0,193	0,021
P30	0,229	0,673	-0,492	-0,127	0,365	0,025
P70	0,066	0,774	-0,843	-0,383	0,460	0,072

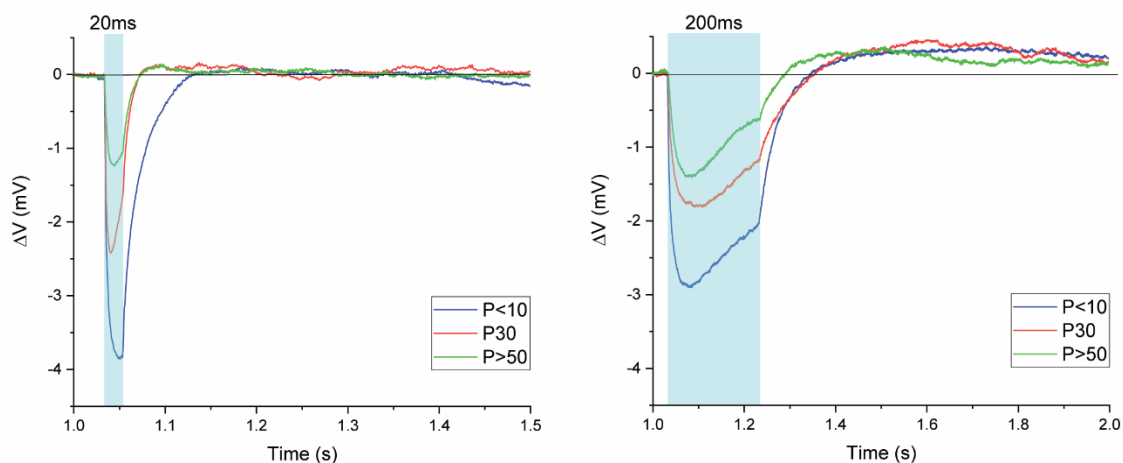


Figure S3. Representative traces of membrane potential hyperpolarization of Ziapin2-treated HEK-293T cells at increasing cell passages. Light stimulation (power density: 53mW/mm²) persists for both 20ms (left) and 200ms (right).