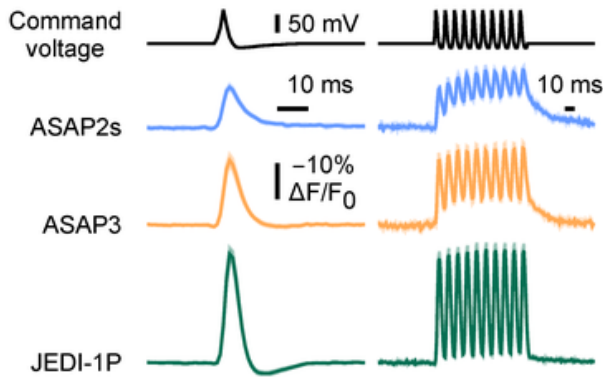


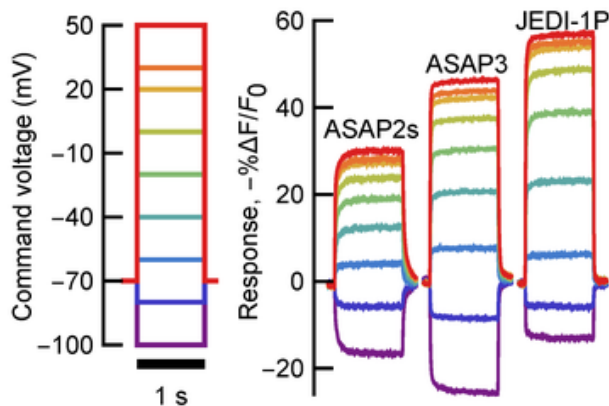
JEDI-1P spec sheet

All experiments performed at room temperature in HEK293A cells unless otherwise noted
1-3 imaging rate \approx 1000 fps; 1-3, 5 excitation wavelength = 470 nm

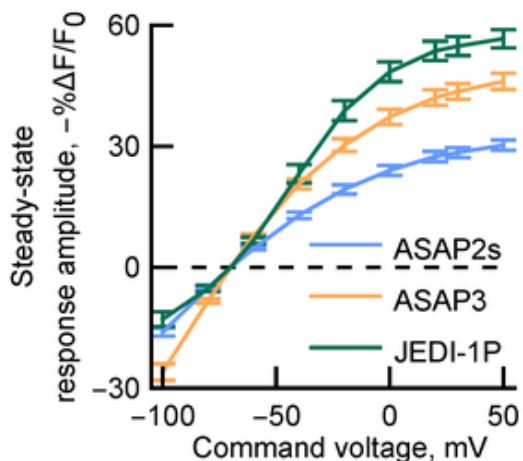
1. Response to action potentials



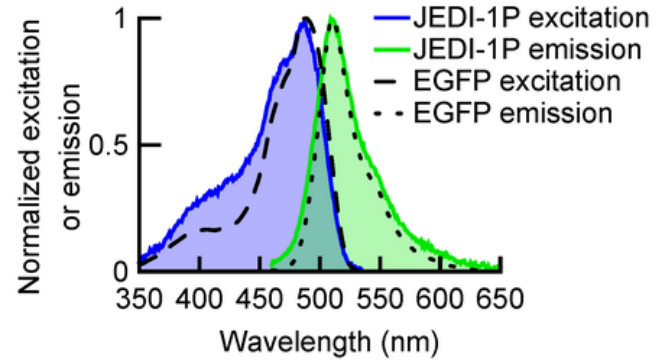
2. Response to step voltages



3. F-V curve



4. Excitation/Emission spectra



5. Kinetics

	JEDI-1P	ASAP3	ASAP2s
Depolarization Kinetics at 32°–35°C			
Tau fast (ms)	0.54 ± 0.07	0.98 ± 0.15	3.78 ± 0.22
Tau slow (ms)	10.3 ± 1.8	20.9 ± 16.2	132 ± 63
Fast %	89.3 ± 2.3	82.4 ± 5.9	93.6 ± 1.2
Repolarization Kinetics at 32°–35°C			
Tau fast (ms)	1.20 ± 0.12	4.29 ± 0.68	7.59 ± 0.60
Tau slow (ms)	n/a *	136 ± 47	170 ± 25
Fast %	n/a *	86.9 ± 11.2	91.7 ± 0.6
Depolarization Kinetics at 21°–23°C			
Tau fast (ms)	1.74 ± 0.12	2.26 ± 0.55	6.39 ± 0.34
Tau slow (ms)	27.8 ± 3.0	32.2 ± 18.8	125 ± 43
Fast %	85.9 ± 1.4	78.4 ± 11.0	91.3 ± 1.3
Repolarization Kinetics at 21°–23°C			
Tau fast (ms)	2.91 ± 0.17	11.0 ± 1.24	12.7 ± 0.9
Tau slow (ms)	n/a *	112 ± 44	143 ± 22
Fast %	n/a *	85.3 ± 10.9	87.1 ± 2.2

* These kinetics were best-fit by a monoexponential function.