



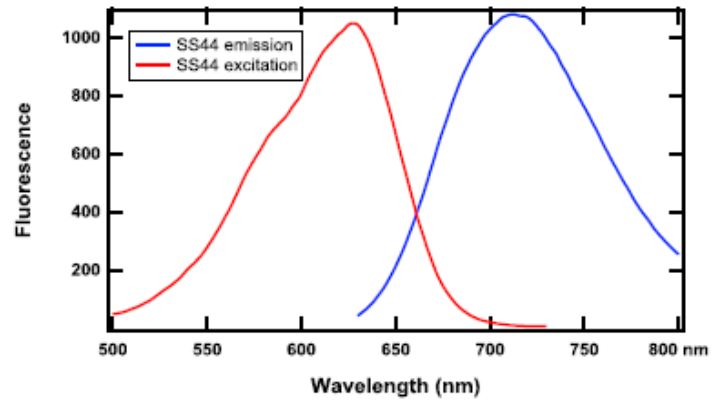
VOLTAGE SENSITIVE DYE DATA SHEET

Dye name	SS44DC
Molecular Weight	893.96
Appearance	blue solid and solution
Solubility	1 mg/mL in water, chloroform, ethanol and DMSO
Emission Characteristics	emissive when dissolved in non-polar solvent or embedded in membrane; non-emissive in polar solvent (e.g. water)
Storage Conditions	4 °C and protected from exposure to light
Dye Loading Concentrations	250-750 nM for microscopy; 800-1600 nM for electrophysiology
Camera Frame Rate	5 ms to maximum response
Voltage Sensitivity ($\Delta F/F$)	9 % (All-optical assay with HEK293 cells) ² 1.6 % (Electric field stimulus with cultured neurons)

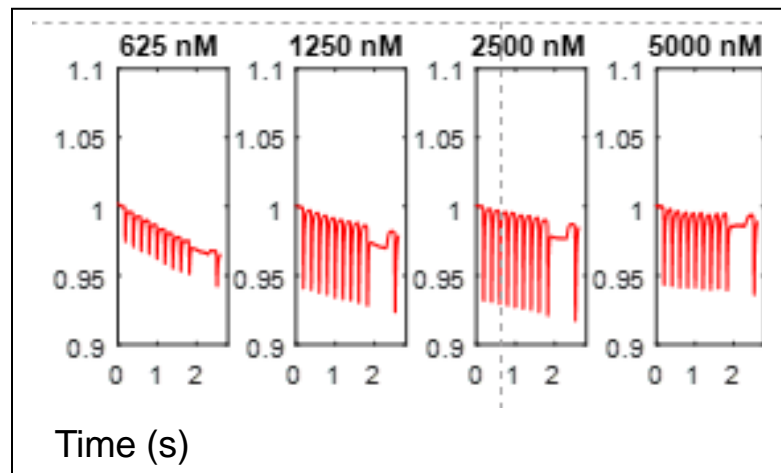
	SPECIFICATION
Absorption ¹ Maximum Extinction	628 nm 62000 cm ⁻¹ M ⁻¹
Fluorescence ¹ Emission Maximum	712 nm
LC Purity	consistent with > 95 %
NMR Result	consistent with structure
Miscellaneous Information Lot notes	second lot; consistent appearance

1. Solvent: Chloroform.
2. Laser excitation at 635 nm.

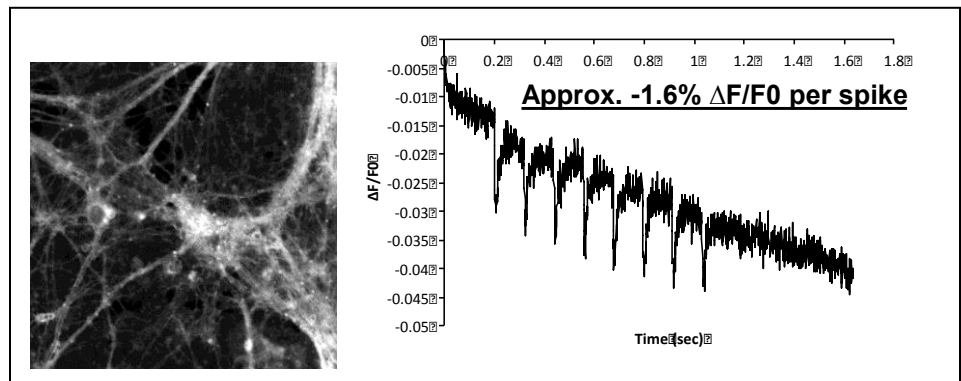
Absorption & Emission Spectra



Voltage Response (HEK293 cells)



Voltage Response (Cultured neurons)



**Microscopy Images
(Xenopus model)**

