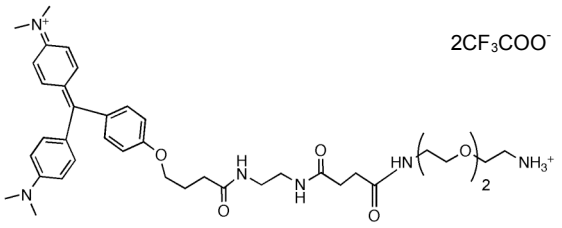
MG-2p-NH2 Info

Molecular Biosensors and Imaging Center
Carnegie Mellon University
A Technology Center for Networks and Pathways

Physical Properties

Formula Weight	931 g/mol
Chemical Formula	$C_{39}H_{56}N_6O_6 \bullet 2C_2F_3O_2$
Solubility	>10 mg/mL in Water, Methanol
Storage	2-8^0 C in dark

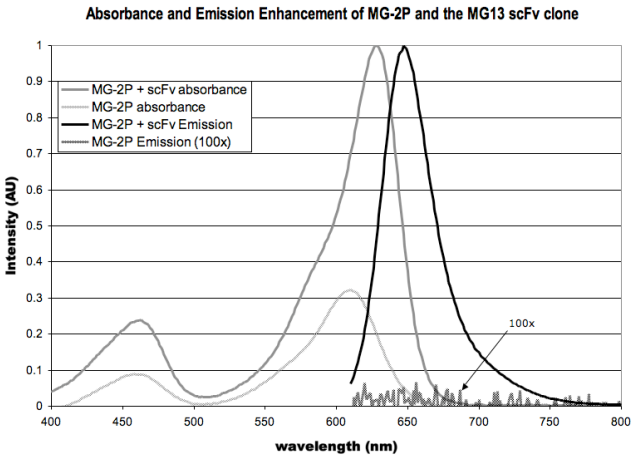
Chemical Structure



Spectral Properties

Extinction Coeff.	74,250 $M^{-1}cm^{-1}$ (607 nm)
Ex/Em Maxima MG-1 (H6) Bound	635/656 nm
MG-13 (HL4) Bound	629/649 nm
MG-16 (L5) Bound	640/668 nm
Quantum Yield Free	<0.000015
Bound MG1 (H6): 0.25	
MG13 (HL4) 0.16	MG16 (L5): 0.05
Fold Enhancement	MG1 (H6): 18000
	MG13 (HL4): 15700
	MG16 (L5): 4100

Excitation/Emission Spectra



Biochemical Properties

mol Dye / mol scFv	TBD
Affinity (Cell Surface)	**MG-1**: 7.5 nM **MG-13**: ~3.2 nM **MG-16**: ~1.2 nM

This dye is expected to be cell impermeant—but we're not certain about that yet. It is typically non-fluorescent unless bound to an appropriate activating molecule, such as the companion scFv's. We have seen weak fluorescence in permeabilized yeast cells at 100 nM concentrations.

For more information

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