Synthesis and photochemical studies of two p-hydroxyphenacyl derived photocages

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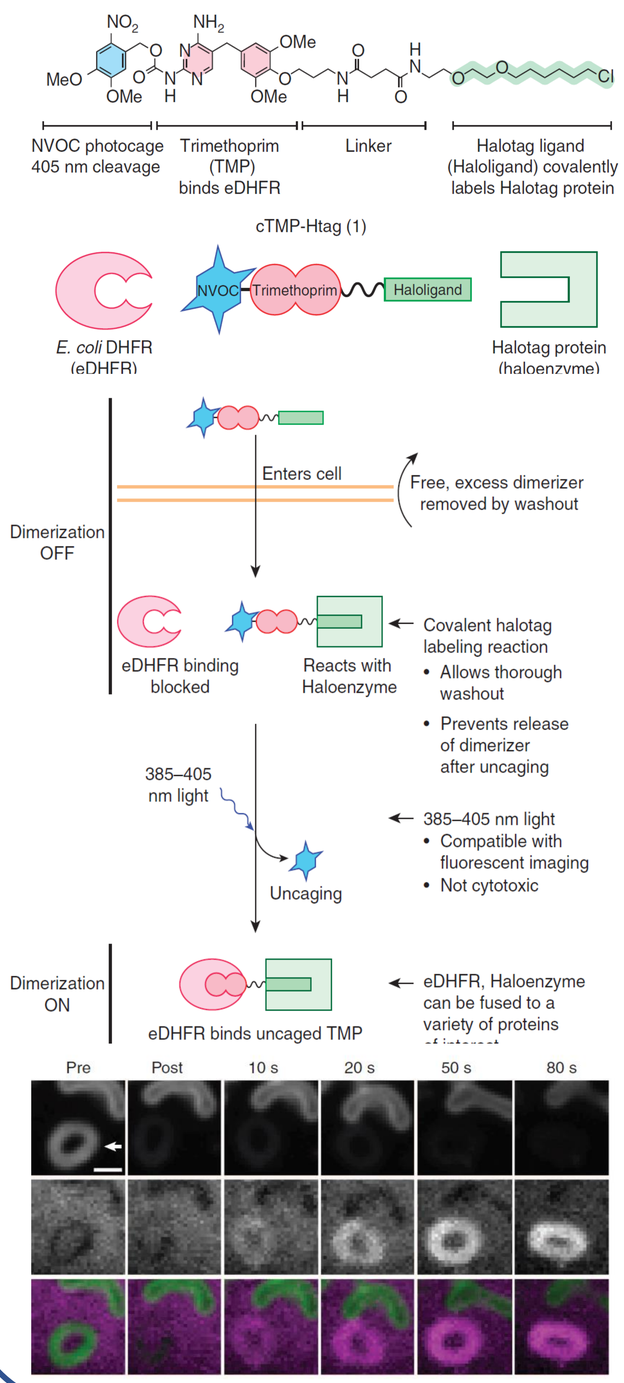
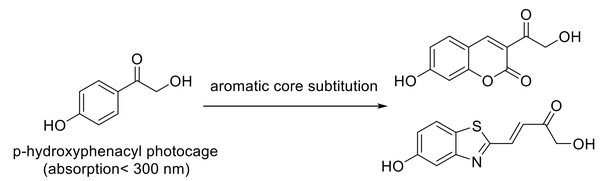
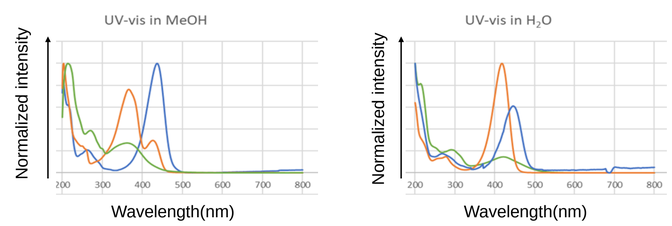
Introduction



Experimental design

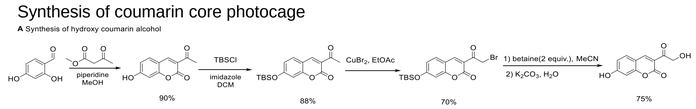


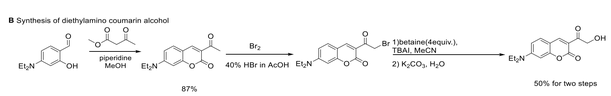
Result and discusssion



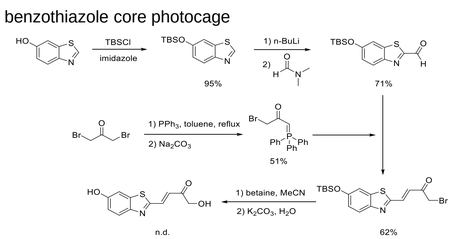
MeOH	363 nm, 426 nm	437 nm	270 nm, 362 nm
H_2O	418 nm	446 nm	290 nm, 421 nm

Synthesis of coumarin core photocage

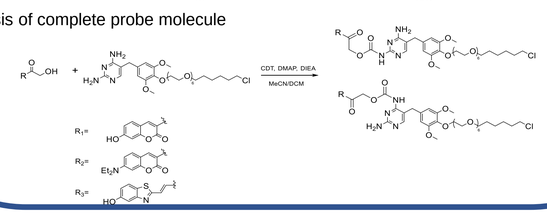




Synthesis of benzothiazole core photocage



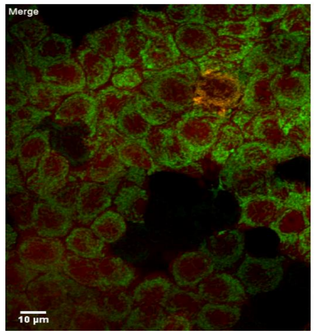
Synthesis of complete probe molecule



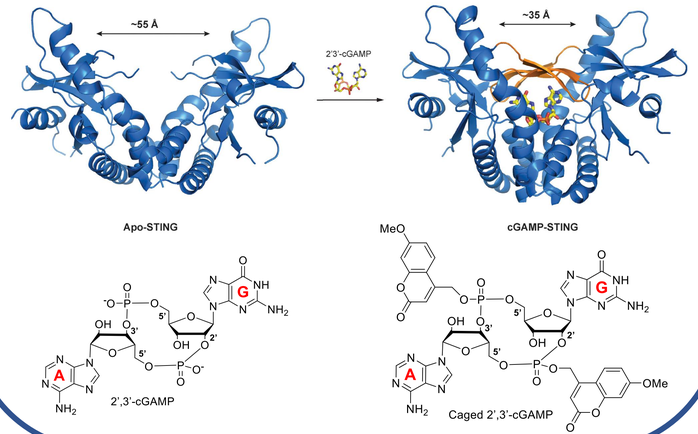
Conclusion and Future Development

The synthesis of three photocages and corresponding probe molecule is demonstrated. All these photocages have aborption maxima over 400 nm in water and can be easily prepared.

Future development 1-cell imaging experiment



Future development 2-caged cGAMP



Reference

1. Ballister, E. R.; Aonbangkhen, C.; Mayo, A. M.; Lampson, M. A.; Chenoweth, D. M. Localized Light-Induced Protein Dimerization in Living Cells Using a Photocaged Dimerizer. *Nat. Commun.* **2014**, *5* (1), 5475.
2. Cai, X.; Chiu, Y.-H.; Chen, Z. J. The CGAS-CGAMP-STING Pathway of Cytosolic DNA Sensing and Signaling. *Molecular Cell* **2014**, *54* (2), 289–296.

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