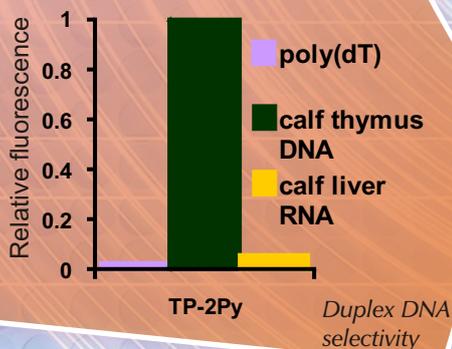


Compared to commercial red DNA stainers, TP-Py are **much more stable** over long continuous illumination than TO-PRO3 (>30min vs 5 min) and **more selective** than Propidium iodide (No RNA staining for TP-Py family). **Two photon absorption cross-section is much higher** than usual dyes.

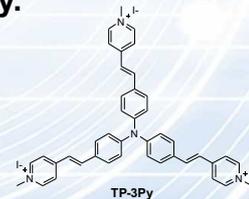
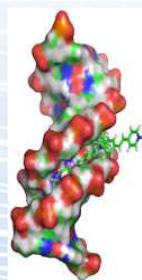
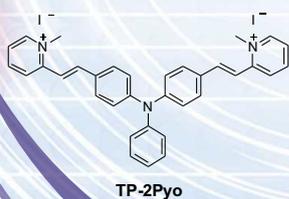
TP-Py advantages :

- o Short, efficient & scalable synthesis
- o Cell-permeant
- o Dual excitation: 480/510 nm (1-ph.) and 820 nm(2-ph.)
- o High two-photon cross-sections: 200 to 700 GM
- o Far red emission : 660/680 nm
- o Very high photostability (>1/2h)
- o Minor groove binder
- o DNA-specific

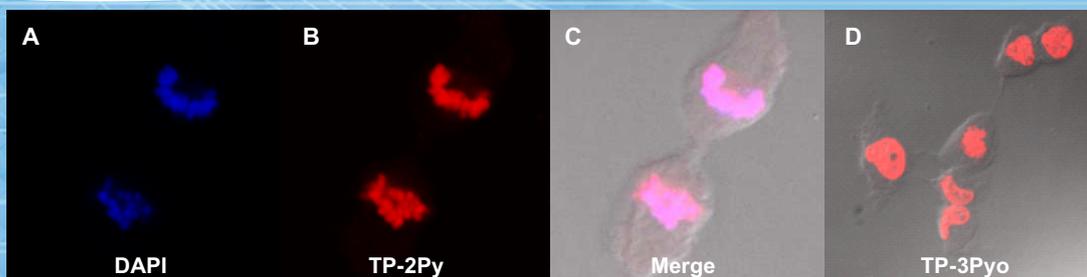


TP-Py new two-photon absorbing red DNA stainers

TP-Py family includes 4 triphenylamine-based dyes with **2 or 3 branches** and *ortho/para*-pyridinium moieties (TP-2Py, TP-2Pyo, TP-3Py and TP-3Pyo). These DNA stainers absorb 2 photons at 820nm (or one photon around 500 nm) to emit in the far red region (660-680nm) in fixed and live cells with **excellent contrast, brightness and photostability**.



Model of TP interaction with duplex DNA



-MRC-5 cell staining. A,B,C. Colocalisation experiments with DAPI (one photon fluorescence). D. Mitotic live cells stained with TP-3Pyo (two-photon fluo.).

9 TRL 4 NASA
4 → Technology under development
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