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Title: An “off-on” fluorescein-based colormetric and fluorescent probe for the detection of glutathione and cysteine over homocysteine and its application for cell imaging

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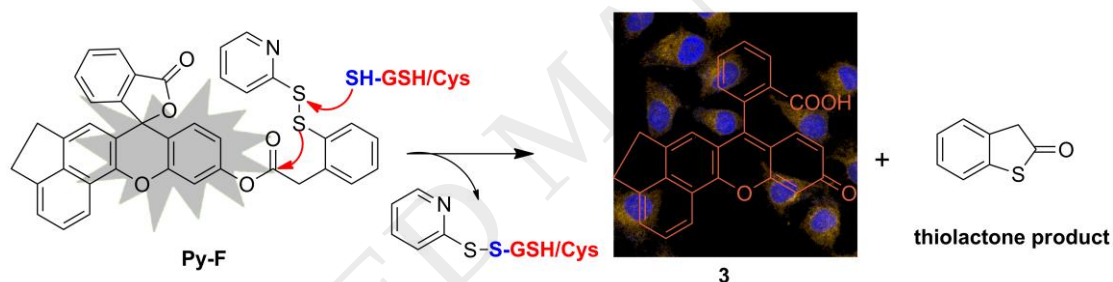
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Graphical abstract



Highlight

1. An “off-on” fluorescein-based chemodosimeter **Py-F** for the recognition of biological thiols was designed and developed.
2. **Py-F** exhibited both colorimetric and fluorescent response to glutathione and cysteine over homocysteine.
3. The detection mechanism was studied by spectroscopy titrations, mass spectra determination and DFT calculations.
4. Fluorescence cell imaging demonstrated that the probe could be serve as a potential

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