

## Author's Accepted Manuscript

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PII: S0039-9140(18)30770-7  
DOI: <https://doi.org/10.1016/j.talanta.2018.07.064>  
Reference: TAL18893

To appear in: *Talanta*

Received date: 4 May 2018  
Revised date: 15 July 2018  
Accepted date: 19 July 2018

Cite this article as: Bing Yang, Jing Xu, Zeng-Hui Yuan, Da-Jun Zheng, Zhen-Xiang He, Qing-Cai Jiao and Hai-Liang Zhu, A new selective fluorescence probe with a quinoxalinone structure (QP-1) for cysteine and its application in live-cell imaging, *Talanta*, <https://doi.org/10.1016/j.talanta.2018.07.064>

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# A new selective fluorescence probe with a quinoxalinone structure (QP-1) for cysteine and its application in live-cell imaging

Bing Yang<sup>1</sup>, Jing Xu<sup>1</sup>, Zeng-Hui Yuan, Da-Jun Zheng, Zhen-Xiang He\*, Qing-Cai Jiao\*, Hai-Liang Zhu\*

*State Key Laboratory of Pharmaceutical Biotechnology, Nanjing University, Nanjing, 210023, China.*

*E-mail addresses: zhuhl@nju.edu.cn*

*jiaoqc@nju.edu.cn; zxhe@nju.edu.cn.*

*\*Corresponding authors.*

## Abstract

A new selective probe with a quinoxalinone structure, **QP-1**, has been developed for detection of Cys from biothiols. **QP-1** features superb selectivity to Cys and a wide pH range. **QP-1** has selectivity to Cys over Hcy, GSH, other amino acids and ions. HRMS spectra confirmed that the detection process was a conjugate addition-addition-elimination reaction. Moreover, **QP-1** has been successfully applied in the imaging of Cys in living cells. Finally, **QP-1** has been used to detect Cys in rat urine samples.

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<sup>1</sup> Both authors contributed equally to the work.

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