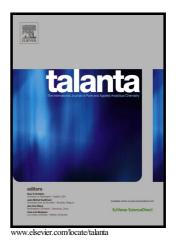
Author's Accepted Manuscript

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

Bing Yang, Jing Xu, Zeng-Hui Yuan, Da-Jun Zheng, Zhen-Xiang He, Qing-Cai Jiao, Hai-Liang Zhu



 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

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

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

Bing Yang¹, Jing Xu¹, 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. Acceré

¹ Both authors contributed equally to the work.

Download English Version:

https://daneshyari.com/en/article/7676058

Download Persian Version:

https://daneshyari.com/article/7676058

Daneshyari.com