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PII: S0039-9140(18)30360-6
DOI: https://doi.org/10.1016/j.talanta.2018.04.015
Reference: TAL18554

To appear in: *Talanta*

Received date: 13 January 2018
Revised date: 27 March 2018
Accepted date: 7 April 2018

Cite this article as: Xiang Han, Chang Tian, Jingjing Jiang, Mao-Sen Yuan, Shu-Wei Chen, Juan Xu, Tianbao Li and Jinyi Wang, Two Ratiometric Fluorescent Probes for Hypochlorous Acid Detection and Imaging in Living Cells, *Talanta,* https://doi.org/10.1016/j.talanta.2018.04.015

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ABSTRACT. Hypochlorous acid plays a very important role in living cells, because it can resist microorganism attack and has a lethal effect on pathogens. The unnormal generation of ClO^- can cause tissue damage and corresponding diseases. Detection of ClO^- is very necessary in biological systems. In this article, we respectively hybridized the two different water-soluble coumarin (7-hydroxycoumarin and 7-diethylaminocoumarin) fluorophores with a longer-wavelength emissive rhodamine fluorophore to construct an intergrant, and then isothiocyanate was modified with the intergrant to recognized ClO^-. The two ratiometric fluorescent probes **RHClO-1** and **RHClO-2** were developed for ClO^- detecting with high selectivity and sensitivity. Especially, the probe **RHClO-2** has lower detection limit (42 nM) for ClO^- in 5 seconds. What's more, the probe **RHClO-2** was successfully used in monitoring endogenous ClO^- in living cells.