Electronic Supplementary Information

A Selective Colorimetric and Fluorescent Probe for Detection of ClO\(^-\) and its application in bioimaging

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Figure S1: The emission spectra of probe when all kinds of analytes added
Figure S2: Choice of pH-range for the Measurement
Figure S3: Detection limit for ClO\(^-\)
Figure S4: Comparison with other reported hypochlorite probes.
Figure S5: ESI-MS spectra of the probe-ClO\(^-\)
**Figure S1:** The emission spectra of probe when all kinds of analytes added

![Emission Spectra of Probe](image)

**Figure S1:** The selectivity of DV26 for ClO$^-$, H$_2$O$_2$, ClO$_2^-$, ONOO$^-$, F$^-$, ClO$_3^-$, CN$^-$, NO$_2^-$, S$^{2-}$, SCN$^-$, MnO$_4^-$, ClO$_4^-$, CO$_3^{2-}$ and P$_2$O$_7^{4-}$.
Figure S2: Choice of pH-range for the Measurement
Figure S3: Detection limit for ClO$^-$
**Figure S4:** Comparison with other reported hypochlorite probes.

<table>
<thead>
<tr>
<th>method</th>
<th>analyte</th>
<th>signal output</th>
<th>wavelength</th>
<th>solvent</th>
<th>detection limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ref(31)</td>
<td>hypochlorite</td>
<td>fluorescence</td>
<td>$\lambda_{ab}$=496nm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$\lambda_{em}$=523nm</td>
<td>Tris-HCl buffer/DMSO</td>
<td>0.040μM</td>
</tr>
<tr>
<td>ref(33)</td>
<td>hypochlorite</td>
<td>absorbance</td>
<td>$\lambda_{ab}$=572nm</td>
<td>PBS buffer</td>
<td>1.74μM</td>
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<tr>
<td>ref(36)</td>
<td>hypochlorite</td>
<td>fluorescence</td>
<td>$\lambda_{em}$=530nm</td>
<td>CH3OH/H2O</td>
<td>50μM</td>
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<tr>
<td>ref(37)</td>
<td>hypochlorite</td>
<td>absorbance</td>
<td>$\lambda_{ab}$=452nm</td>
<td>PBS buffer</td>
<td>0.2μM</td>
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<tr>
<td>this work</td>
<td>hypochlorite</td>
<td>absorbance</td>
<td>$\lambda_{ab}$=544nm</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>fluorescence</td>
<td>$\lambda_{ab}$=586 nm.</td>
<td>HEPES/CH3CN</td>
<td>0.037μM</td>
</tr>
</tbody>
</table>

These values were measured at $\lambda_{em}$= 625 nm.
**Figure S5:** ESI-MS spectra of the probe-ClO$^-$

The ESI-MS of product obtained by mixing probe NaOCl, m/z: [Probe-ClO$^- + $Na]$^+$

Calcd for C$_{26}$H$_{18}$NaCl$_2$O$_4$Na 541.04, Found 541.08.