Electronic Supplementary Material (ESI) for Analytical Methods.


# A Highly Selective and Sensitive Fluorescence Sensor for the Detection of Apigenin based on Nitrogen Doped Carbon Dots and its application in cell imaging

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**Table S1**. Comparision of different methods for Api detection.

| Method | Line range | Detection limit | Ref |
|---|---|---|---|
| Column-switching HPLC assay | 6.667 ~ 133.333 ng/mL | 10 ng/mL | 11 |
| HPLC | 0.1744 ~ 13.95 μg/mL | 31.45 ng/mL | 12 |
| LC-MS | 2.5 ~ 5000 ng/mL | 2.5 ng/mL | 13 |
| Hollow fiber liquid phase microextraction | 0.10 ~ 300 ng/mL | 0.1 ng/mL | 14 |
| RP-HPLC | 16.5 ~ 1860 ng/mL | 1.94 ng/mL | 15 |
| Ionic liquid coupled with HPLC quantification | 0.2 ~ 400.0 μg/mL | 0.11 μg/mL | 16 |
| HPLC | 0.5 ~ 200 μmol/L | 0.1 μmol/L | 17 |
| LC with Electrochemical Detection | 0.14~177.27 μg/mL | $3.5\times10^{-2}$ μg/mL | 18 |
| Capillary zone electrophoresis/UV detection | 8.8 ~ 133.3 μg/mL | 0.2538 μg/mL | 29 |
| Capillary Electrophoresis Method | 5.0 ~ 300 μg/mL | 3.80 μg/mL | 30 |
| Capillary Electrophoresis with diode array | 3~800 μg/mL | 0.53 μg/mL | 31 |
| Micellar Electrokinetic Chromatography- UV | 1.0~100 μmol/L | 0.48μmol/L | 32 |
| **Fluorescence sensor (N-CDs)** | **0.1~60 μmol/L** | **80 nmol/L** | **this work** |

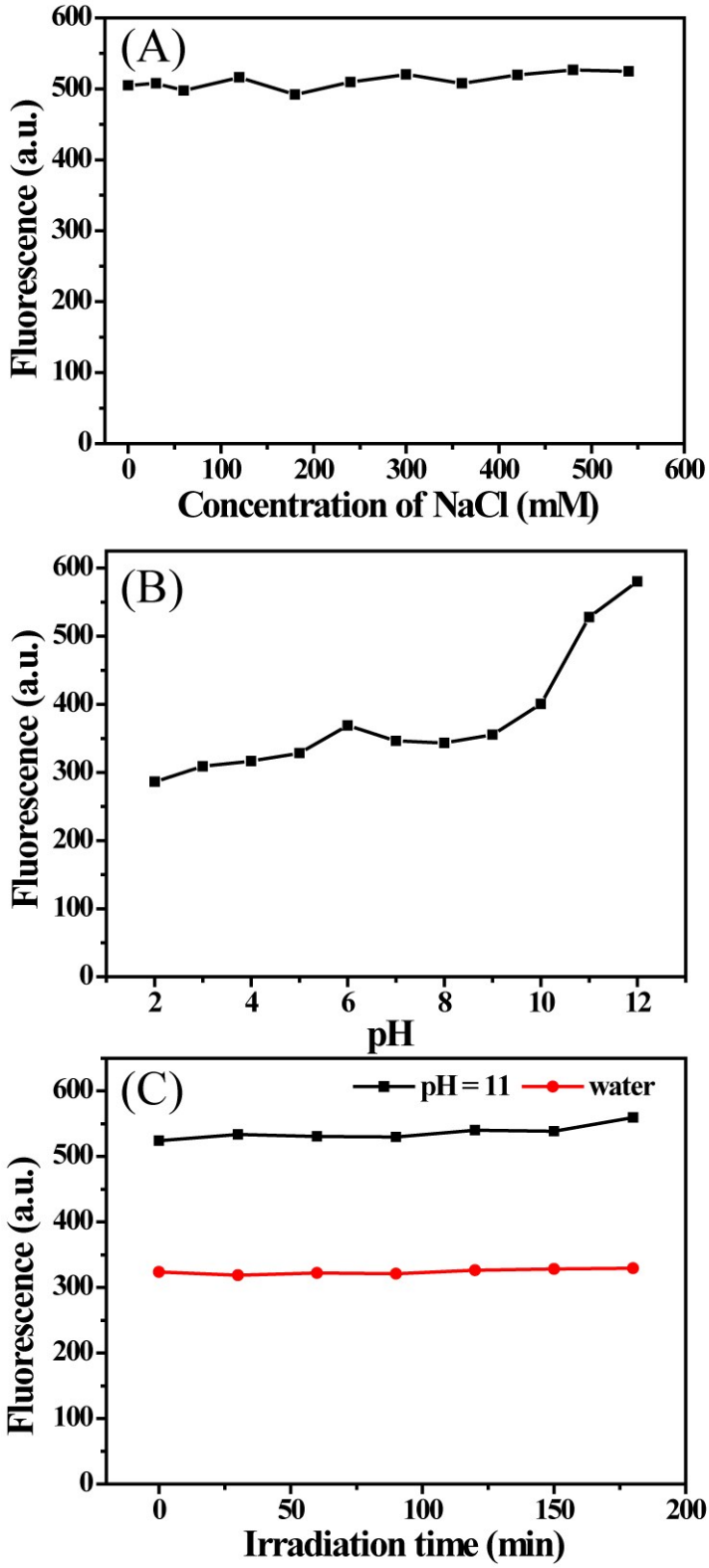


**Figure S1** Stability performance of N-CDs. Effect of ionic strength (A), pH (B), UV lamp irradiation (in water and in pH 11 Britton-Robinson solution) (C) on the fluorescence intensity of N-CDs.

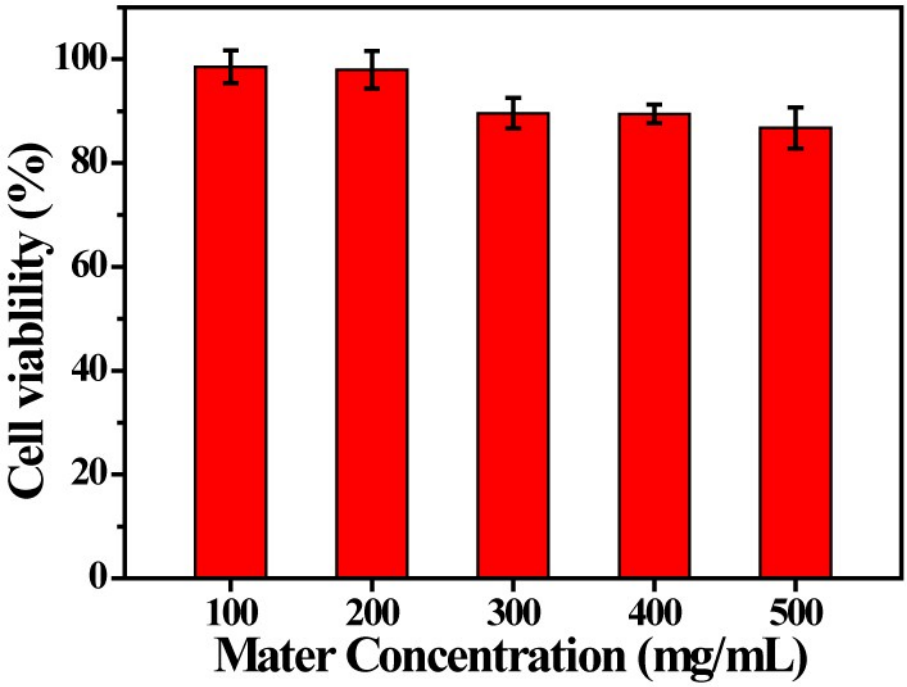


**Figure S2** Cell viability of the Hela cells after incubation with N-CDs for 24 h.