Electronic Supplementary Information

Ultra bright Red AIE Dots for Cytoplasm and Nuclear Imaging

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Figures S1. Mass spectra of TPA-AN-TPM.
Figure S2. A) PL spectra of TPA-AN-Br in THF/water mixtures with different water fractions (f_w); B) Plot of peak intensity of TPA-AN-Br versus water fraction in the aqueous mixtures. [TPA-AN-Br] = 10^{-5} M; λ_ex = 425 nm.

Figures S3. DLS analysis of TPA-AN-Br in THF/water mixtures with different water fractions. (There’s no effective signal when water fraction is below 50%)
Figure S4. Zeta potentials of TPA-AN-TPM@Ps-PVP dots in the aqueous media with different pH at room temperature. Concentration: 0.01 mg/mL.

Figure S5. Cell viability of HeLa cells after incubation with TPA-AN-TPM@Ps-PVP dots at various concentrations for 24 and 48 h

Scheme S1. TPA-AN-TPM@Ps-PVP enters into nucleus along with DNA or RNA.
**Table S1.** Fluorescence quantum yields of TPA-AN-TPM@Ps-PVPs with various TPA-AN-TPM loading amount.

<table>
<thead>
<tr>
<th>TPA-AN-TPM loading [wt%]</th>
<th>2</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>fluorescence quantum yields [%]</td>
<td>5.5</td>
<td>6.4</td>
<td>7.6</td>
<td>9.1</td>
<td>12.9</td>
</tr>
</tbody>
</table>

**Scheme S2.** Schematic illustration of the preparation procedure and the structure of TPA-AN-TPM@PS-PVP Dots

**Figures S6.** $^1$H NMR spectra of TPA-AN-TPM.
Figures S7. $^{13}$C NMR spectra of TPA-AN-TPM.