Electronic Supplementary Material (ESI) for RSC Advances.


# Supporting Information

## Aza-BODIPY Based Polymeric Nanoparticles for Cancer Cell Imaging

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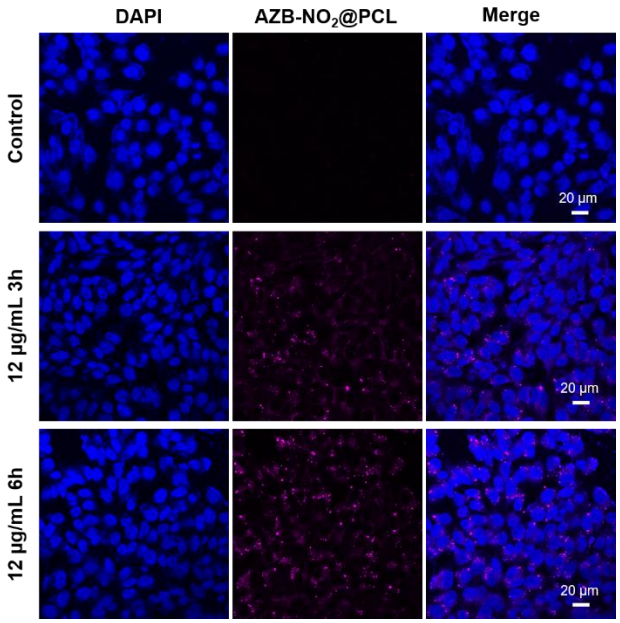


**Figure S1** .Confocal laser scanning microscopy (CLSM) imaging of **AZB-$NO_2$@PCL** in U251 cells . The cells were treated with NPs at concentration of 12 µg/mL and incubated for 3 and 6 h . The results showed NIR fluorescent signal (purple) increased according to prolonged incubation time .

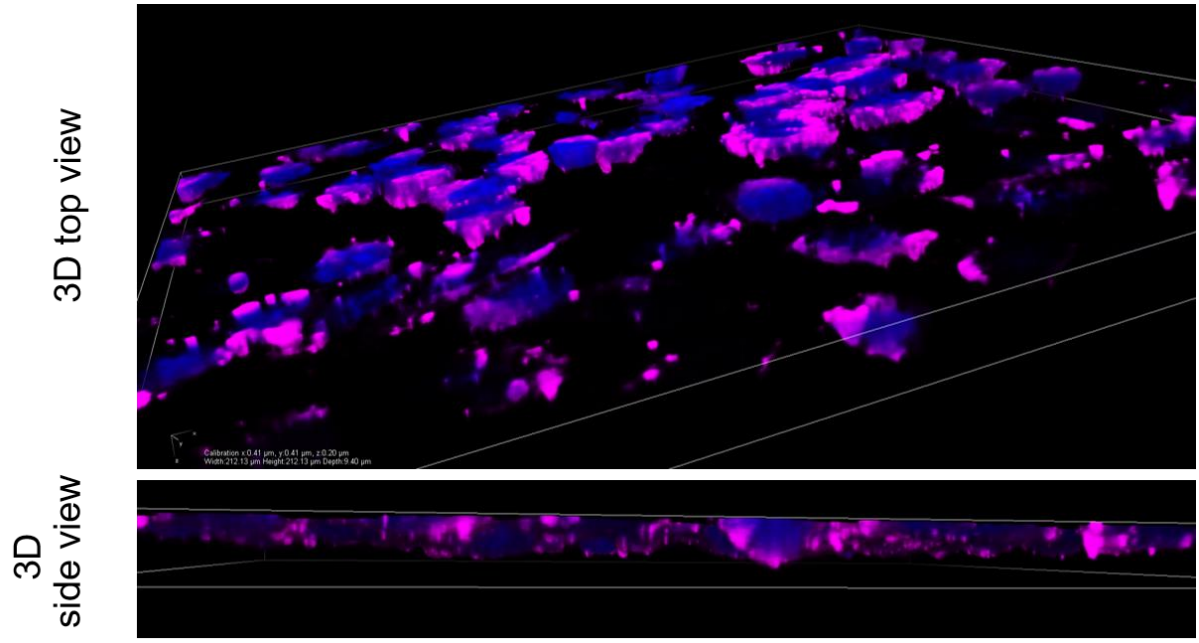


**Figure S2** .Z-stack image created by merging serial scans of thick tissue section (~ 10 µm), viewed under 60x magnification confocal laser scanning microscopy .Z-stack confocal image of U251 cells treated with **AZB-NO2@PCL** (purple) and the nuclear stain DAPI (blue). The 3 dimensional cut-out at the top of the image shows **AZB-NO2@PCL** localized to the cytosolic portion of the cell and do not penetrate the nucleus.

**Table S1**. Characteristics of **AZB-$NO_2$@PCL** prepared from different amounts of Kolliphor P 188 and sonication time with the fixed amount of dye feed at 0.8 mg.*

| Entry | Amount of dye feed (mg) | Amount of Kolliphor P 188 in water (%w/v) | Sonication time (min) | DLS size (nm) (n=3) | PDI (n=3) | Zeta (ζ)-potential (mV) (n=3) |
|---|---|---|---|---|---|---|
| 1 | 0.8 | 1 | 5 | 238.6 (± 8.2) | 0.545 (± 0.018) | -5.73 (± 0.62) |
| 2 | 0.8 | 3 | 5 | 244.5 (± 6.5) | 0.194 (± 0.010) | -6.12 (± 0.45) |
| 3 | 0.8 | 7 | 5 | 203.5 (± 5.6) | 0.187 (± 0.008) | -6.78 (± 0.48) |
| 4 | 0.8 | 5 | 2.5 | 267.7 (± 3.4) | 0.121 (± 0.014) | -7.16 (± 0.57) |
| 5 | 0.8 | 5 | 10 | 185.6 (± 7.6) | 0.486 (± 0.016) | -5.64 (± 0.54) |
| Reference | 0.8 | 5 | 5 | 202.2 (± 6.1) | 0.185 (± 0.006) | -6.89 (± 0.50) |

*Characteristics in each entry were derived from three different batches of nanoparticle preparation (n=3).

**Table S2**. Characteristics of **AZB-$NO_2$@PCL** incubated in phosphate buffer solution (10 mM, pH 7.4) at 37 $^oC$ at various incubation times.*

| Entry | Amount of dye feed (mg) | Amount of Surfactant in water (%w/v) | Sonication time (min) | incubation time (days) | DLS size (nm) (n=3) | PDI (n=3) | Zeta (ζ)-potential (mV) (n=3) |
|---|---|---|---|---|---|---|---|
| 1 | 0.8 | 5 | 5 | 0 | 201.3 (± 3.4) | 0.187 (± 0.018) | -6.24 (± 0.38) |
| 2 | 0.8 | 5 | 5 | 0.5 | 203.3 (± 4.8) | 0.191 (± 0.011) | -6.48 (± 0.43) |
| 3 | 0.8 | 5 | 5 | 1 | 205.2 (± 4.3) | 0.185 (± 0.016) | -6.42 (± 0.51) |
| 4 | 0.8 | 5 | 5 | 2 | 204.5 (± 5.4) | 0.188 (± 0.018) | -6.32 (± 0.42) |
| 5 | 0.8 | 5 | 5 | 3 | 202.7 (± 3.8) | 0.192 (± 0.012) | -6.56 (± 0.36) |
| 6 | 0.8 | 5 | 5 | 5 | 203.6 (± 4.2) | 0.195 (± 0.016) | -6.62 (± 0.45) |
| 7 | 0.8 | 5 | 5 | 7 | 204.5 (± 5.1) | 0.193 (± 0.015) | -6.53 (± 0.32) |

*Characteristics in each entry were derived from three different batches of nanoparticle preparation (n=3).