

## Supporting Information

### Glucose Conjugated Aza-BODIPY for Selective Photodynamic Cancer Therapy

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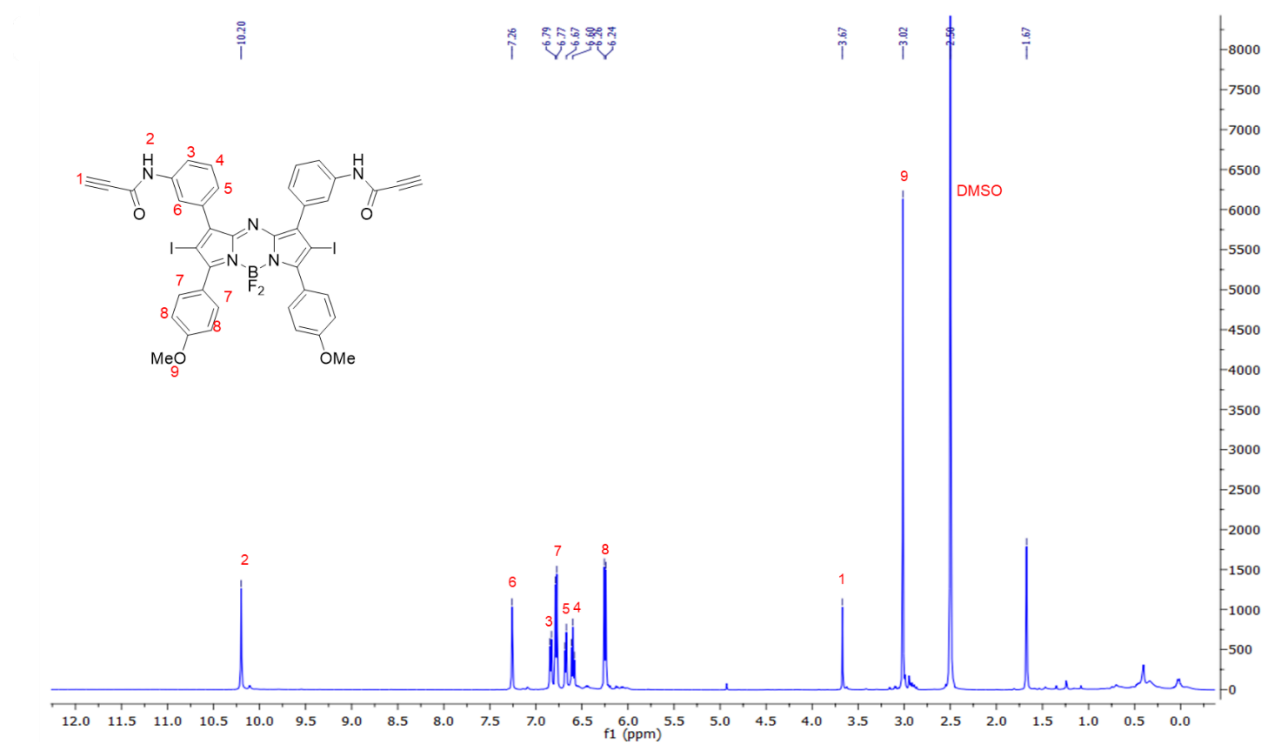
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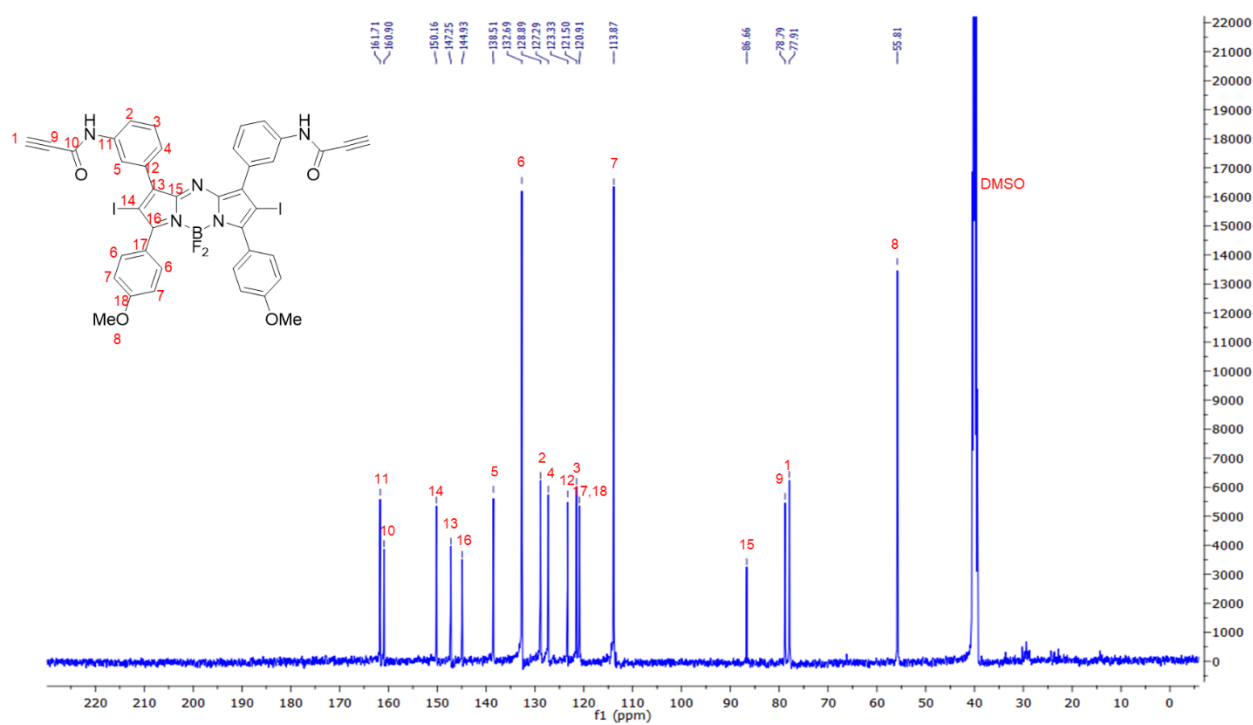
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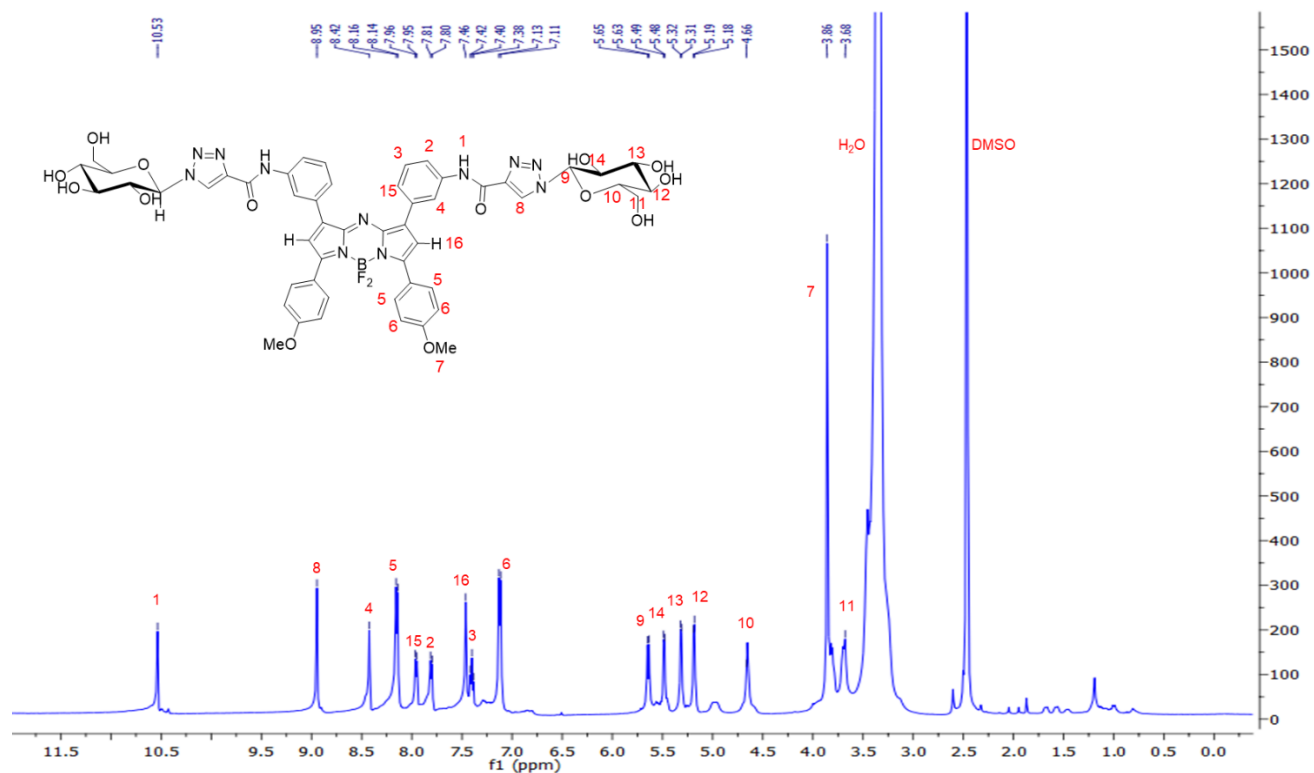
# 1. $^1\text{H}$ and $^{13}\text{C}$ Nuclear Magnetic resonance (NMR) spectra



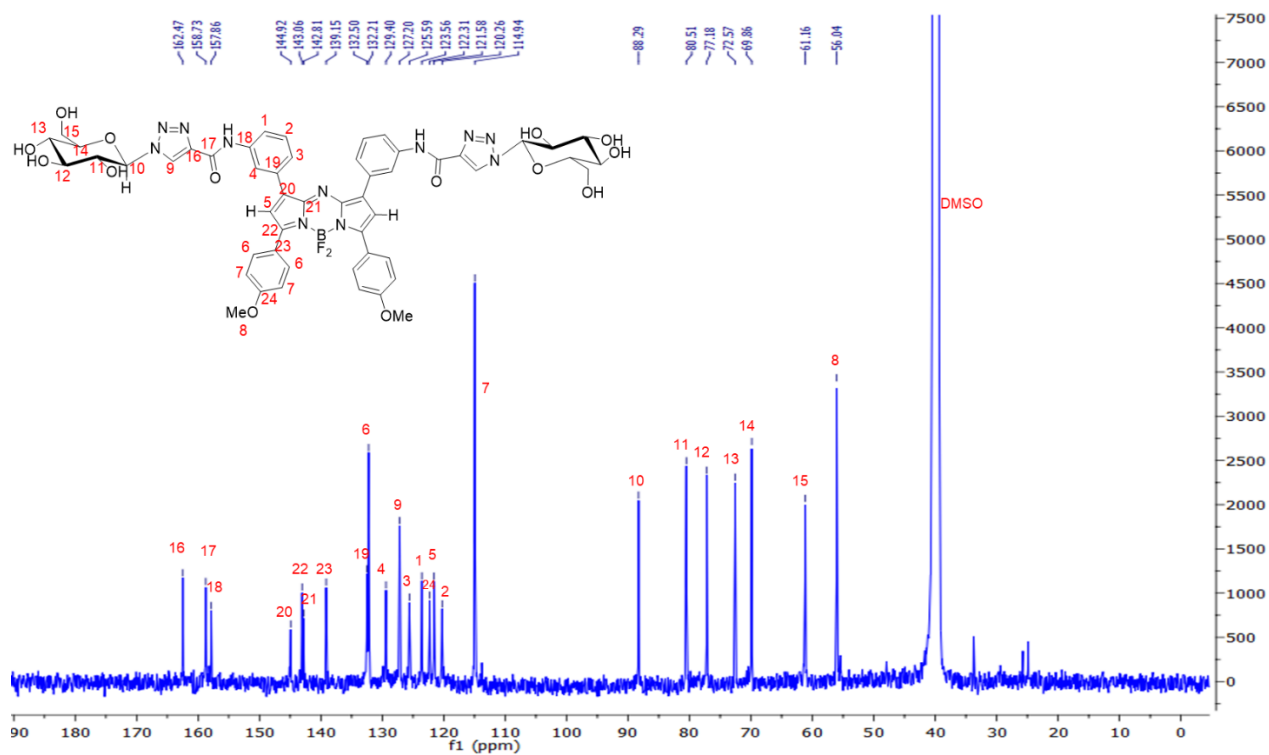
$^1\text{H}$  NMR spectrum of AZB-PI.



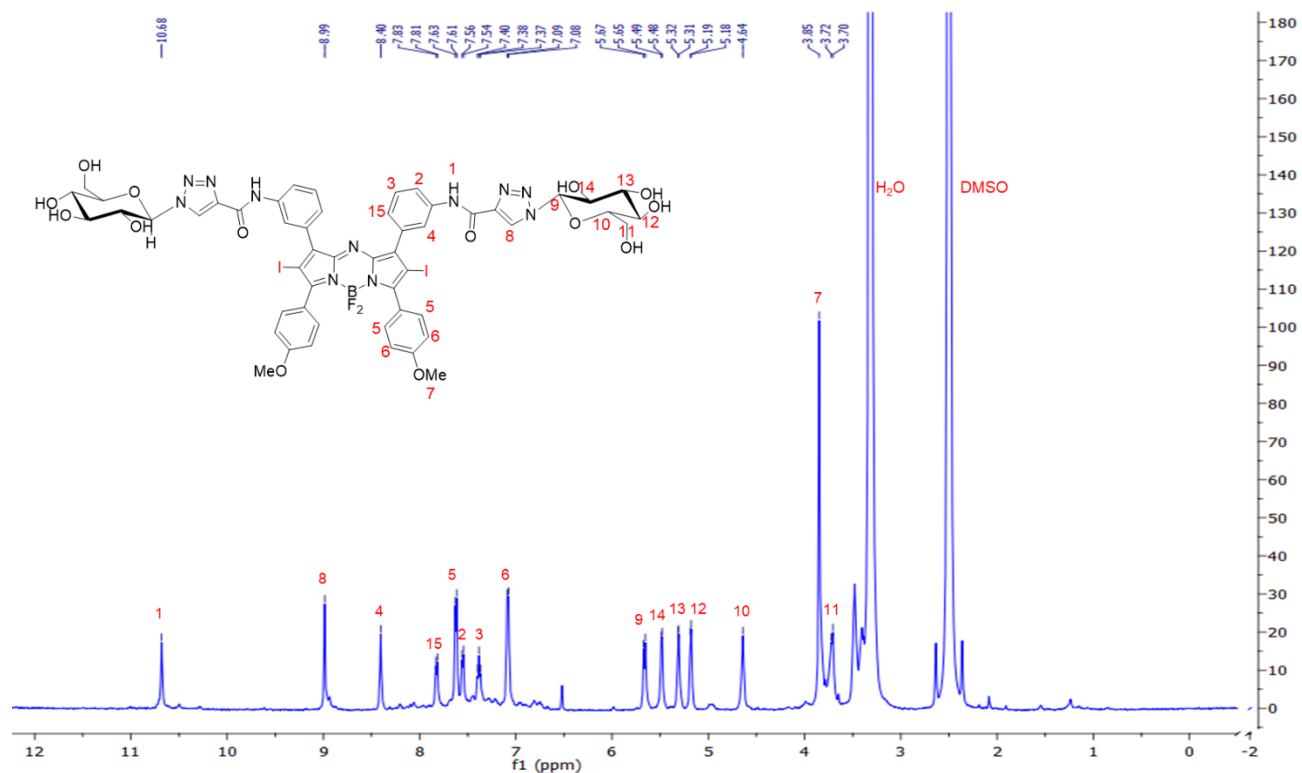
$^{13}\text{C}$  NMR spectrum of AZB-PI.



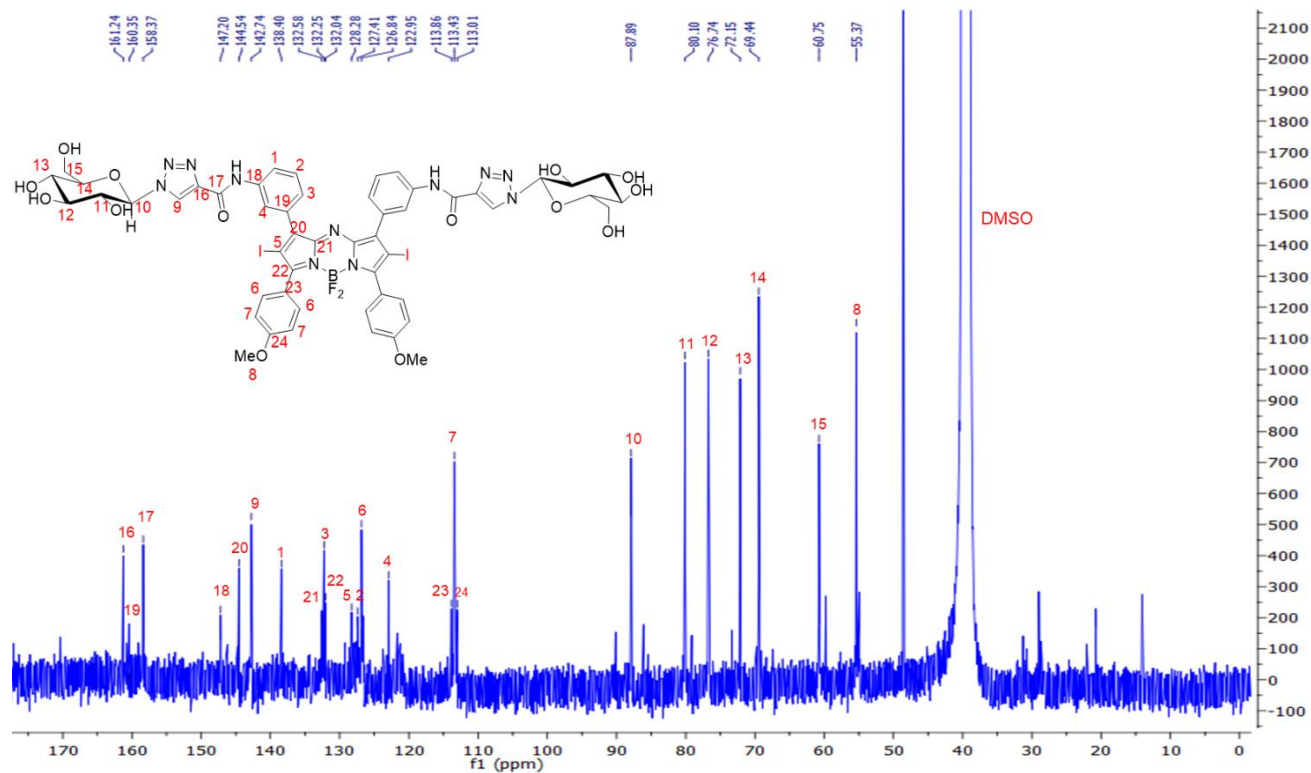
<sup>1</sup>H NMR spectrum of AZB-Glc.



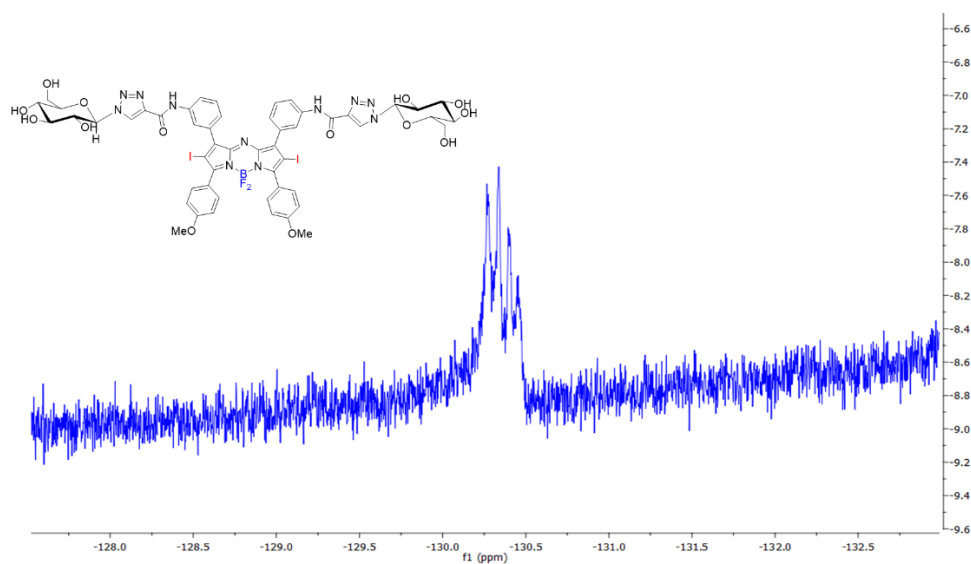
<sup>13</sup>C NMR spectrum of AZB-Glc.



<sup>1</sup>H NMR spectrum of AZB-Glc-I.

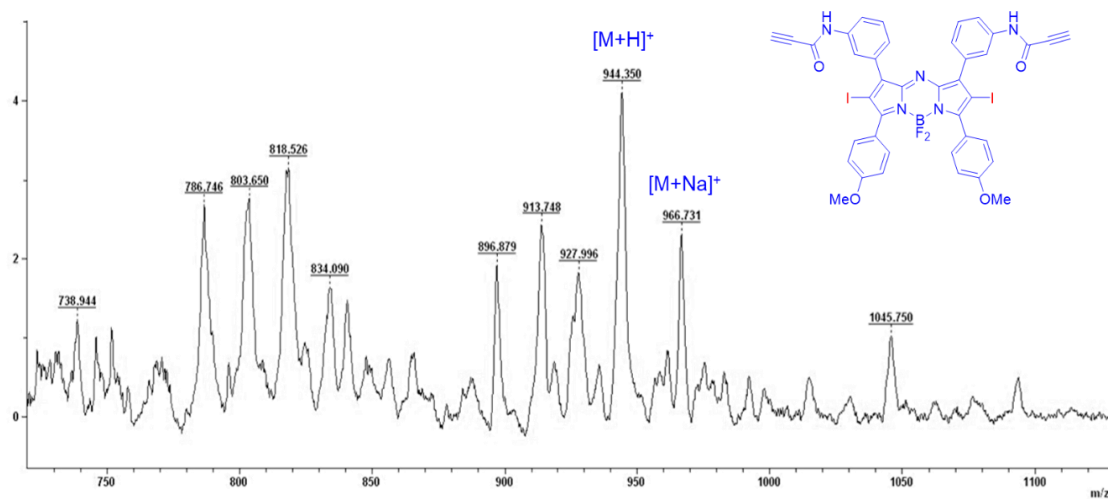


<sup>13</sup>C NMR spectrum of AZB-Glc-I.

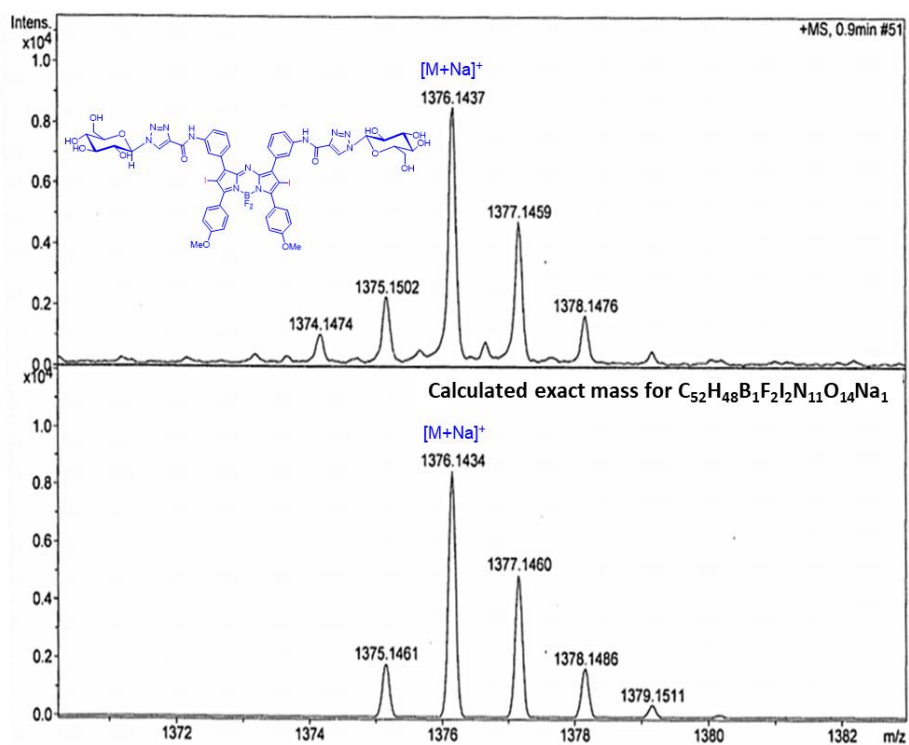
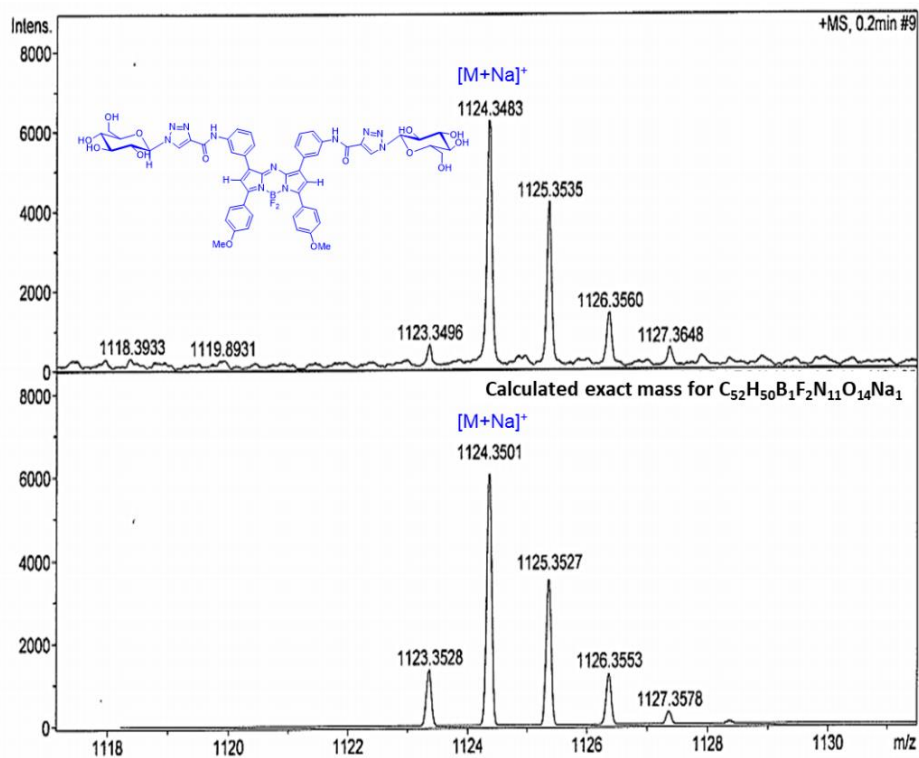


$^{19}\text{F}$  NMR spectrum of AZB-Glc-I.

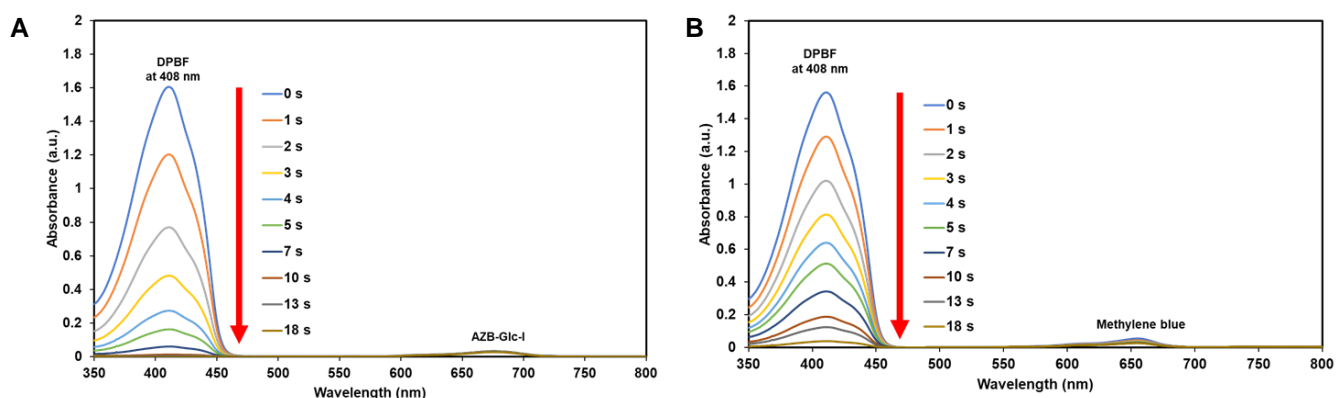
## 2. Mass spectrometry results



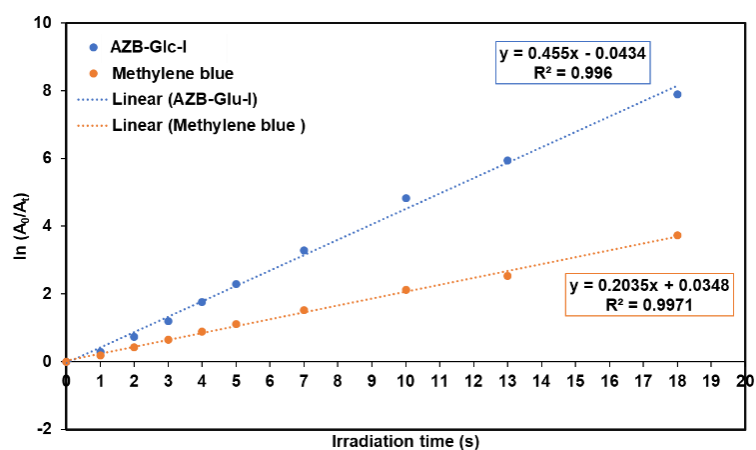
Mass spectrum of AZB-PI.



### 3. Singlet oxygen generation of AZB-Glc-I

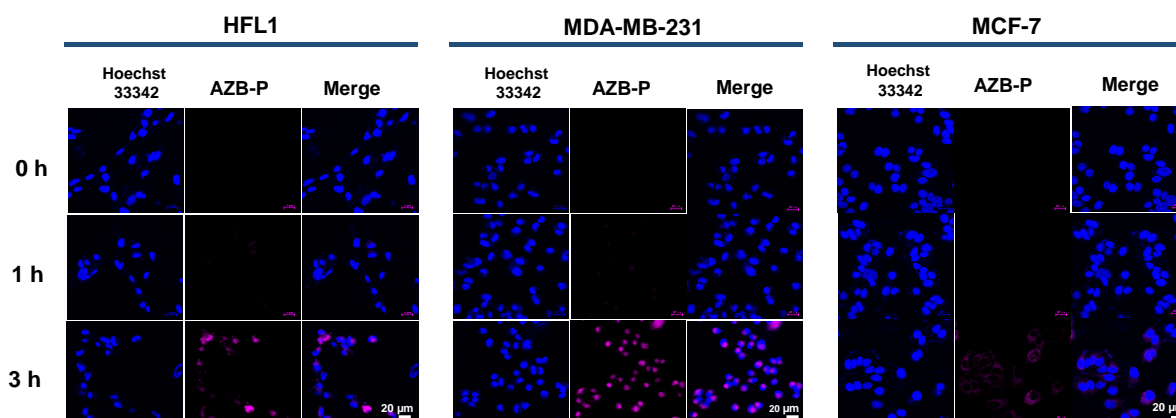


**Figure S1.** DPBF absorbance changes at 408 nm under being exposed to NIR light in the presence of A) **AZB-Glc-I** B) Methylene blue in ethanol.



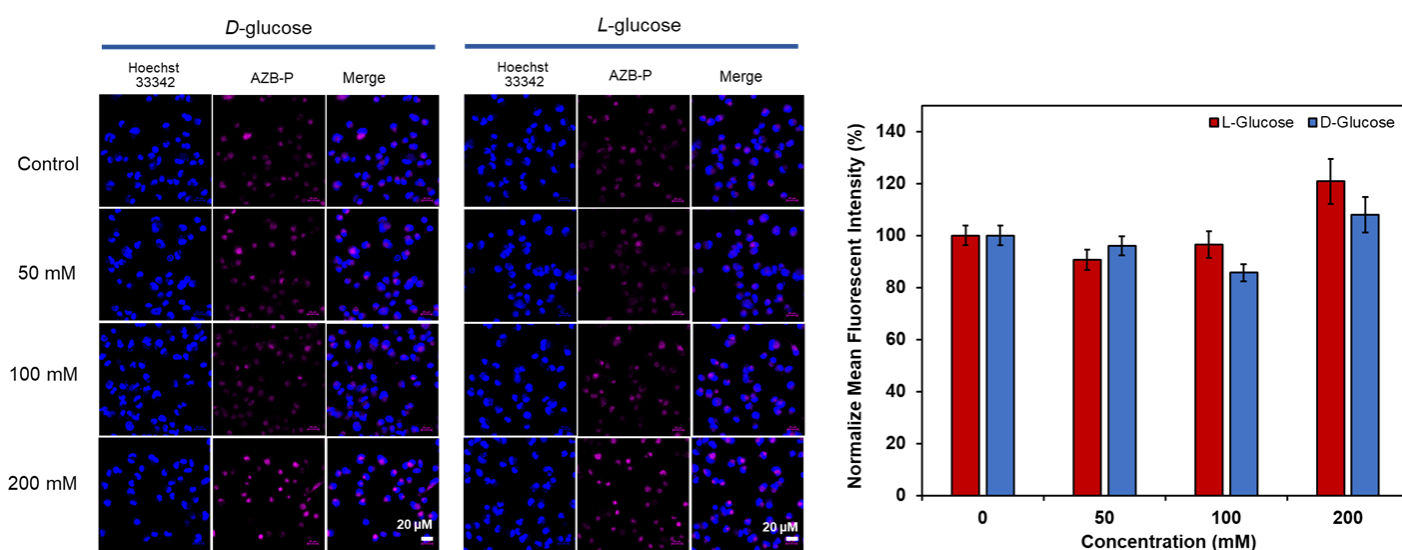
**Figure S2.** The first order kinetic plot of DPBF absorbance at 408 nm vs irradiation times.

### 4. Time dependent internalization of AZB-P in cancer cells



**Figure S3.** Time dependent internalization of **AZB-P** (5 μM) in HFL1, MDA-MB-231 and MCF-7 cells in various incubation times. Scale bars = 20 μm.

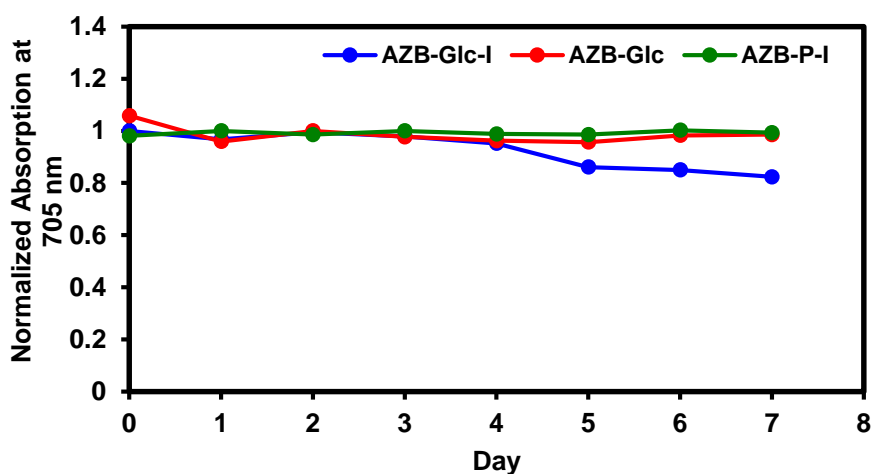
## 5. Competition assay between *D*-/*L*-Glucose and AZB-P



**Figure S4.** Glucose competition assay of **AZB-P** (5 μM) in MDA-MB-231 cells in the presence of various concentrations of *D*- Glucose and *L*-Glucose for 30 min. The fluorescence intensities of the images were quantified using Image J and data are presented as means ± SD (n = 40) in the bar graph. Scale bars = 20 μm.

## 6. Stability of AZB-Glc-I, AZB-Glc, and AZB-P-I stock solutions

Solutions of **AZB-Glc-I**, **AZB-Glc**, and **AZB-P-I** were made as 1.5 mM stocks in DMSO and stored at 20 °C. Before measuring absorbance spectra, all compounds were diluted in DMEM (to mimic the cell assay condition) to a final concentration of 5 μM. The NIR absorption of **AZB-Glc-I**, **AZB-Glc**, and **AZB-P-I** were measured by UV-VIS spectrometer (Thermo Scientific/MultiskanGO) in three independent experiments, every day for 7 days. The absorbance at 705 nm was normalized relative to the freshly prepared stock solutions.



**Figure S5.** Normalized absorption at 705 nm of **AZB-Glc-I**, **AZB-Glc**, and **AZB-P-I** stock solutions in DMSO measured every day for 7 days.