#### **Supporting information**

Tumor-homing glycol chitosan-based optical/PET dual imaging nanoprobe for cancer diagnosis

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# Α

#### **MMP** substrate peptide

(NH<sub>2</sub>-Gly-Pro-Leu-Gly-Val-Arg(pbf)-Gly-Lys(Boc)-Gly-Gly-COOH)



## Cy5.5-MMP substrate peptide

(Cy5.5-Gly-Pro-Leu-Gly-Val-Arg(pbf)-Gly-Lys(Boc)-Gly-Gly-COOH)



## Activatable MMP probe (AMP)

(Cy5.5-Gly-Pro-Leu-Gly-Val-Arg-Gly-Lys-Gly-Gly-COOH)



### **AMP-DBCO**

(Cy5.5-Gly-Pro-Leu-Gly-Val-Arg-Gly-Lys-Gly-Gly-PEG<sub>4</sub>-DBCO)

BHQ-3



**Figure S1.** (A) Scheme for synthesis of AMP-DBCO. (B) HPLC profiles of the reaction mixture for creating the AMP-DBCO.



**Figure S2.** (A) Representative wound healing images of MCF-7, MDA-MB-231, and A549 at 24 h. The black dotted lines indicate at 0 h. (B) The percentage of wound healing in (A). (C) NIR fluorescence image of MMP-sensitive probe in culture medium of MCF-7, MDA-MB-231, and A549, and quantitative data.