

## Supporting Information

### Development of polymeric microbubbles targeted to prostate-specific membrane antigen as **prototype of novel ultrasound contrast agents**

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**Figure S1.** Characterization of intermediate **3**: <sup>1</sup>H-1D NMR. Spectra recorded in CDCl<sub>3</sub> at 600 MHz.

**Figure S2.** Characterization of intermediate **3**: <sup>1</sup>H-<sup>1</sup>H COSY. Spectra recorded in CDCl<sub>3</sub> at 600 MHz.

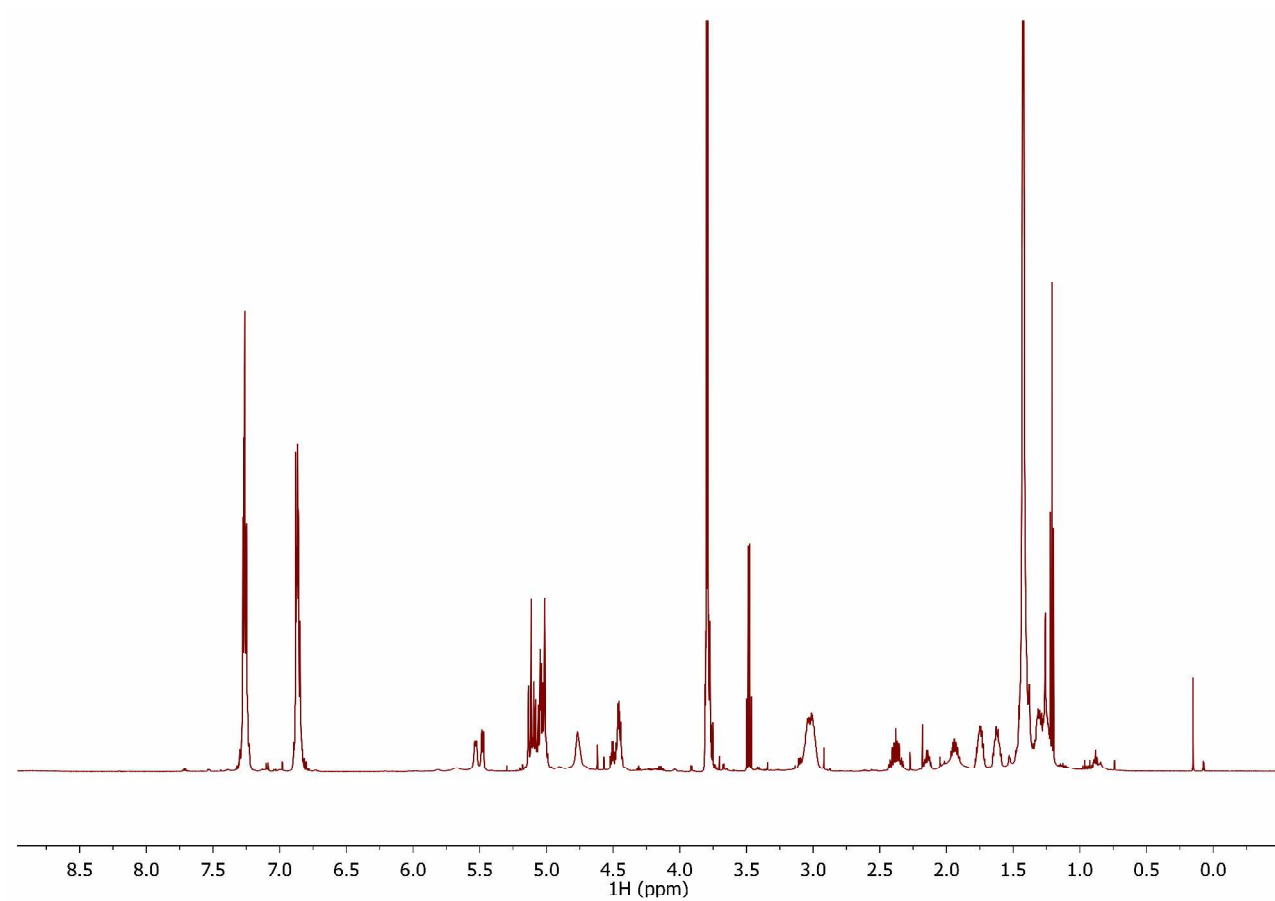
**Figure S3.** Characterization of intermediate **3**: <sup>1</sup>H-<sup>13</sup>C HMBC. Spectra recorded in CDCl<sub>3</sub> at 600 MHz.

**Figure S4.** Characterization of intermediate **3**: <sup>1</sup>H-<sup>13</sup>C HSQC. Spectra recorded in CDCl<sub>3</sub> at 600 MHz.

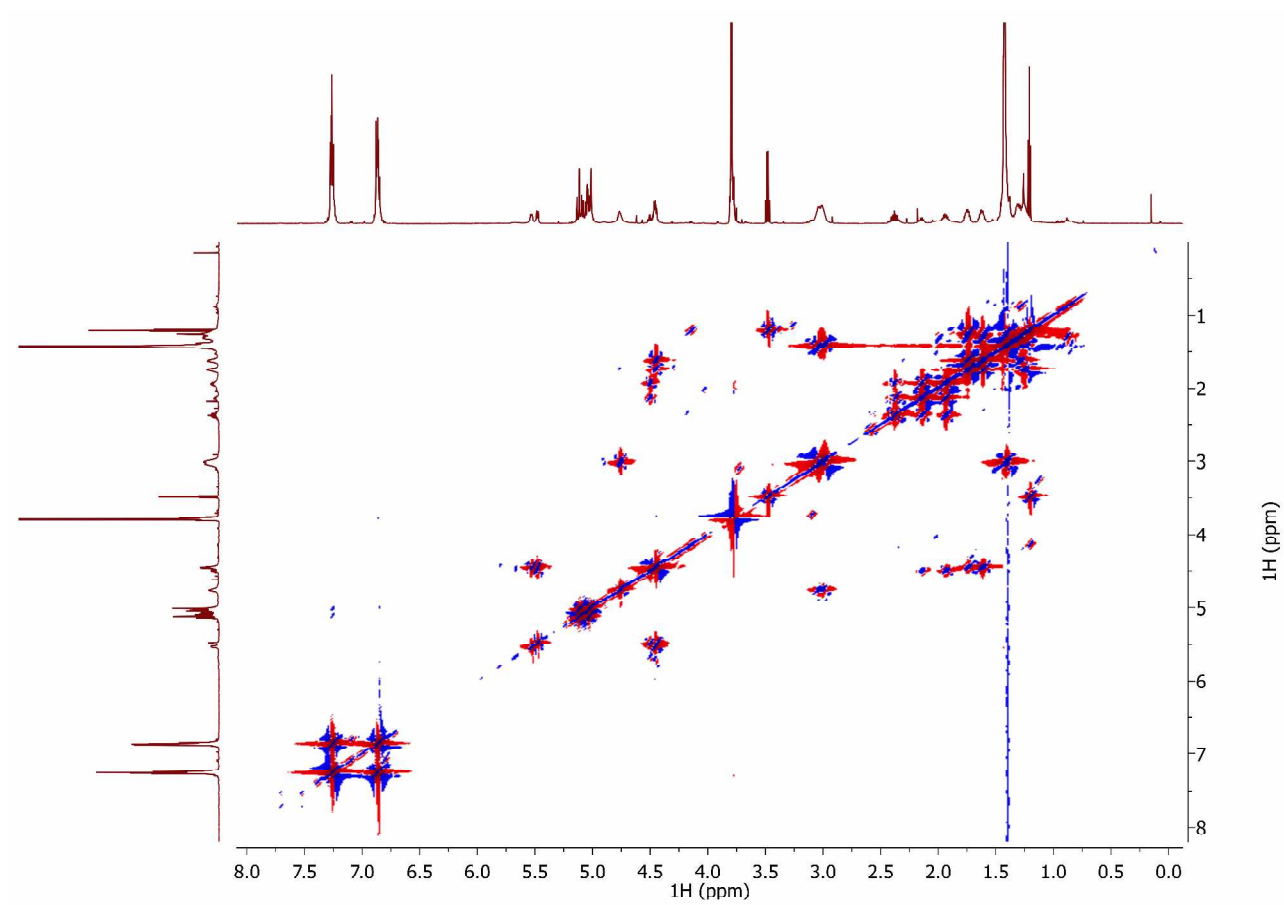
**Figure S5.** Characterization of intermediate **3**: <sup>1</sup>H-<sup>1</sup>H TOCSY. Spectra recorded in CDCl<sub>3</sub> at 600 MHz.

**Figure S6.** Characterization of PLGA-PEG-DCL. <sup>1</sup>H-NMR with pattern signals of PLGA-PEG and of DCL (grey arrows).

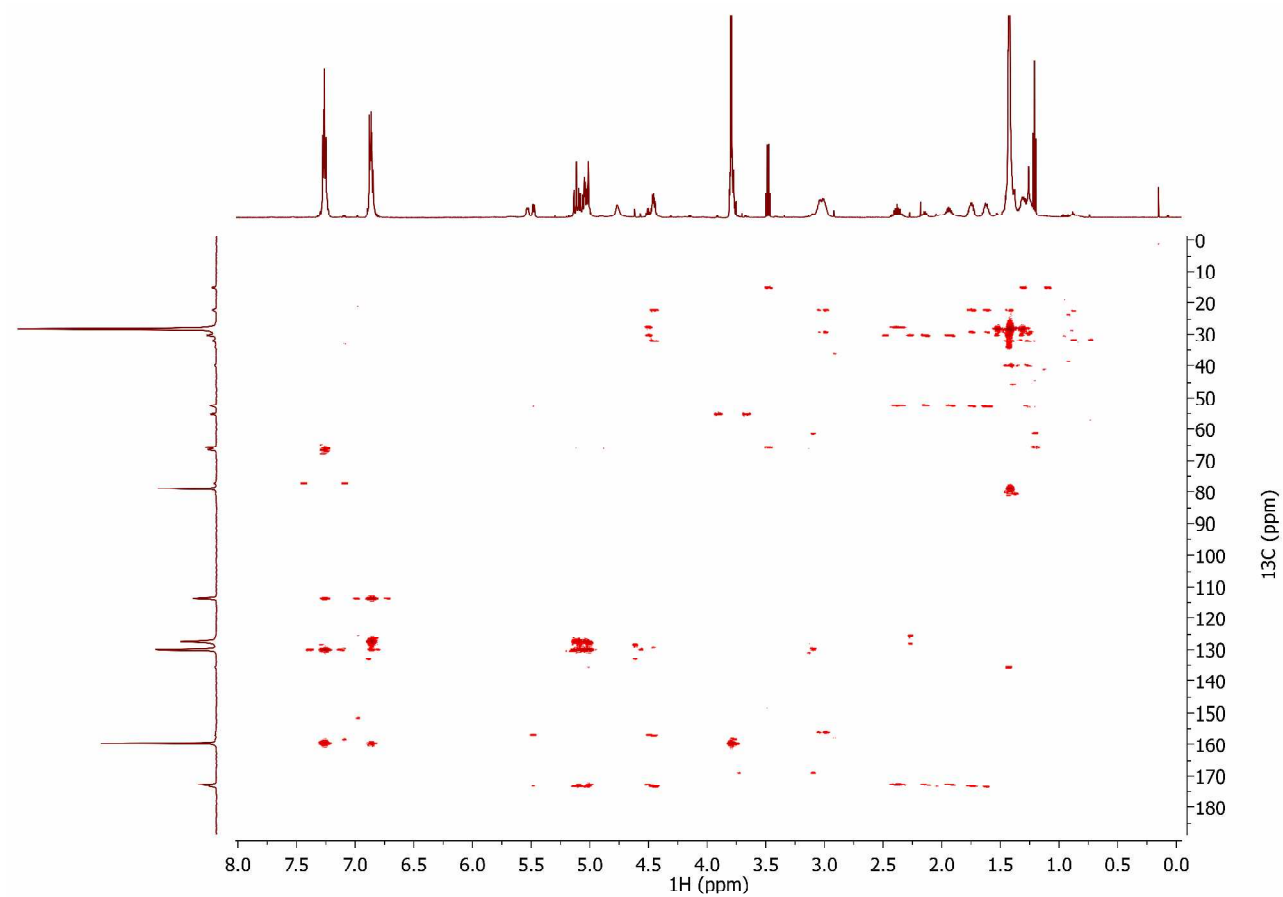
**Figure S1.** Characterization of intermediate **3**:  $^1\text{H}$ -1D NMR. Spectra recorded in  $\text{CDCl}_3$  at 600 MHz.



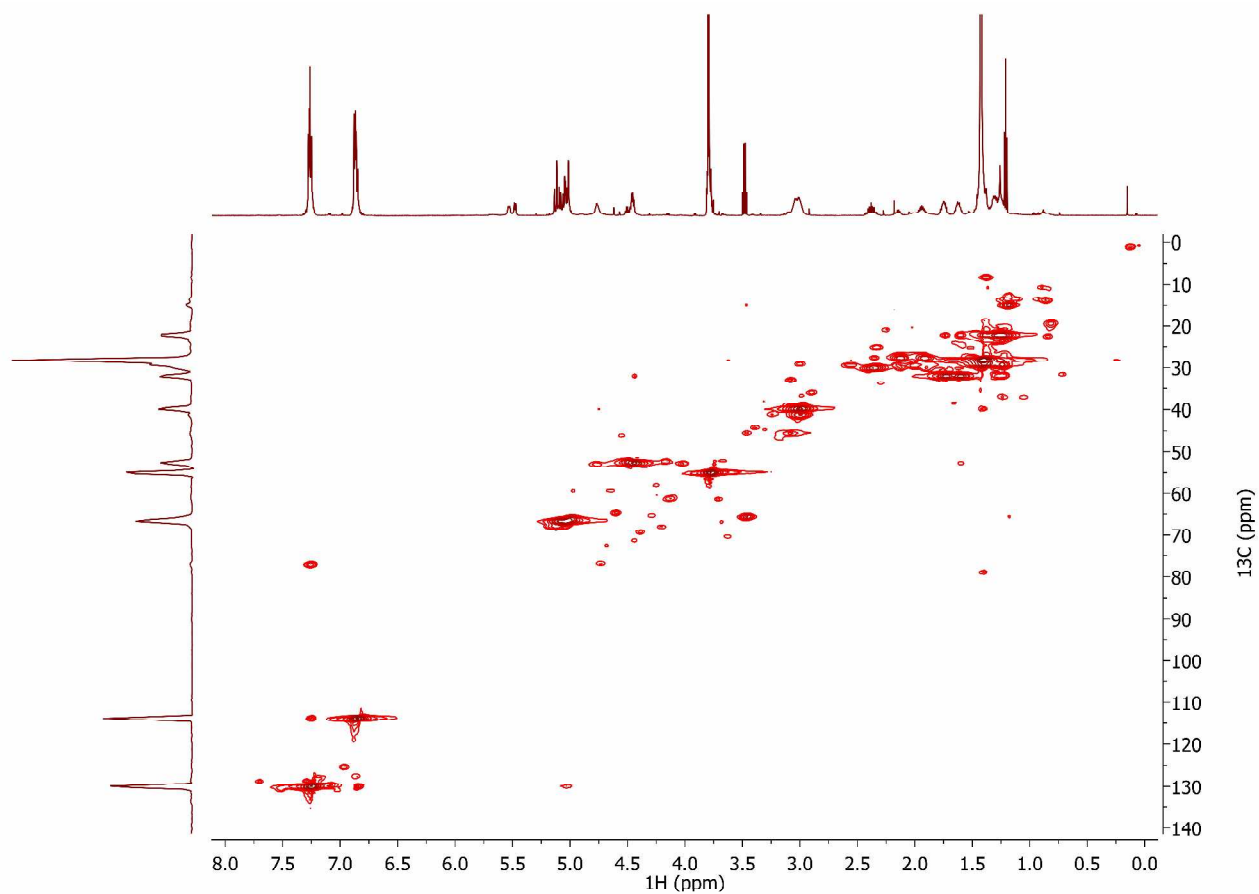
**Figure S2.** Characterization of intermediate **3**:  $^1\text{H}$ - $^1\text{H}$  COSY. Spectra recorded in  $\text{CDCl}_3$  at 600 MHz.



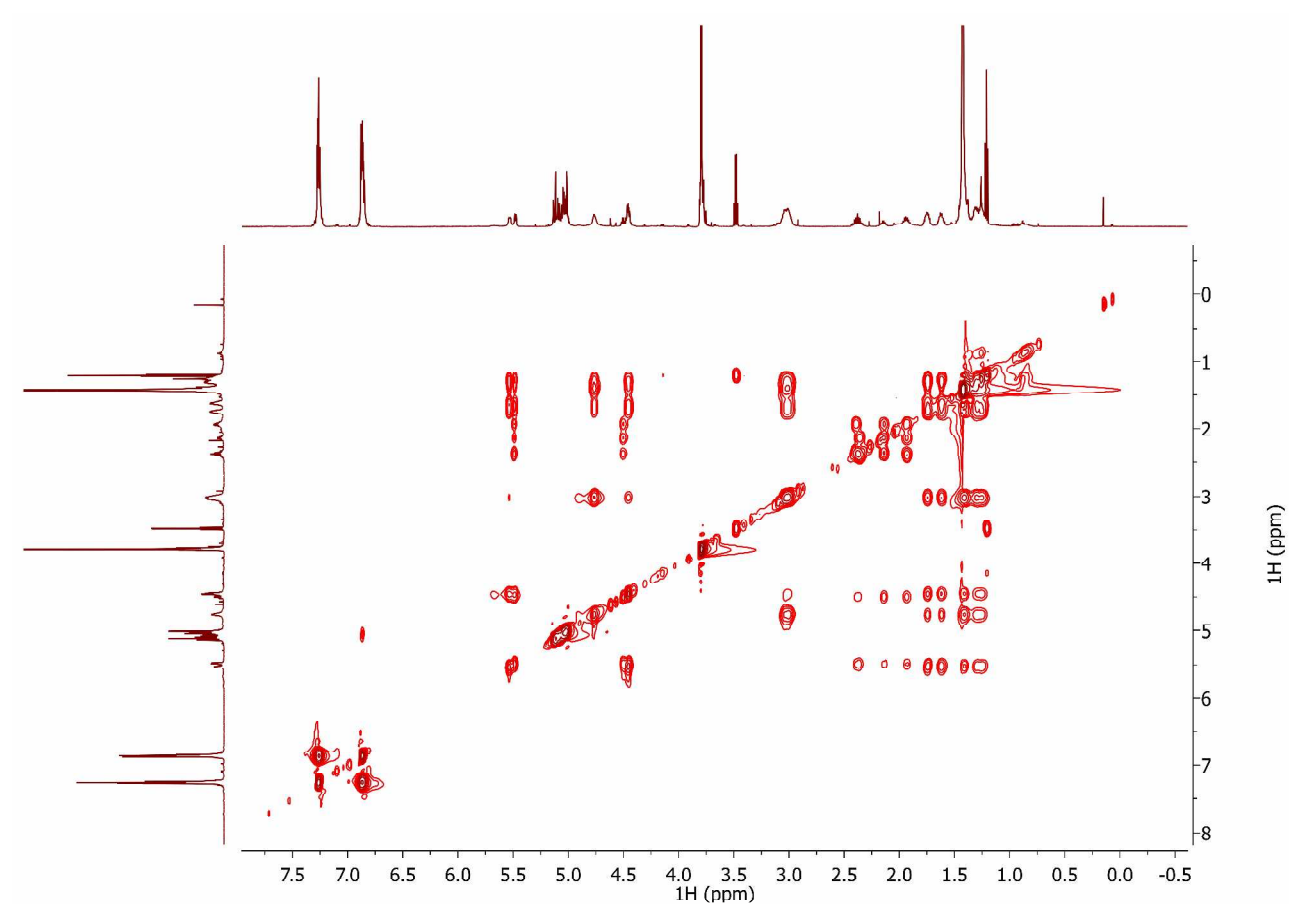
**Figure S3.** Characterization of intermediate **3**:  $^1\text{H}$ - $^{13}\text{C}$  HMBC. Spectra recorded in  $\text{CDCl}_3$  at 600 MHz.



**Figure S4.** Characterization of intermediate **3**:  $^1\text{H}$ - $^{13}\text{C}$  HSQC. Spectra recorded in  $\text{CDCl}_3$  at 600 MHz.



**Figure S5.** Characterization of intermediate **3**:  $^1\text{H}$ - $^1\text{H}$  TOCSY. Spectra recorded in  $\text{CDCl}_3$  at 600 MHz.



**Figure S6.** Characterization of PLGA-PEG-DCL.  $^1\text{H}$ -NMR with pattern signals of PLGA-PEG fragment (**a-d**) and of DCL (grey arrows).

