

Electronic supplementary information

## Dual temperature- and pH-responsive polymeric micelle for selective and efficient two-step doxorubicin delivery

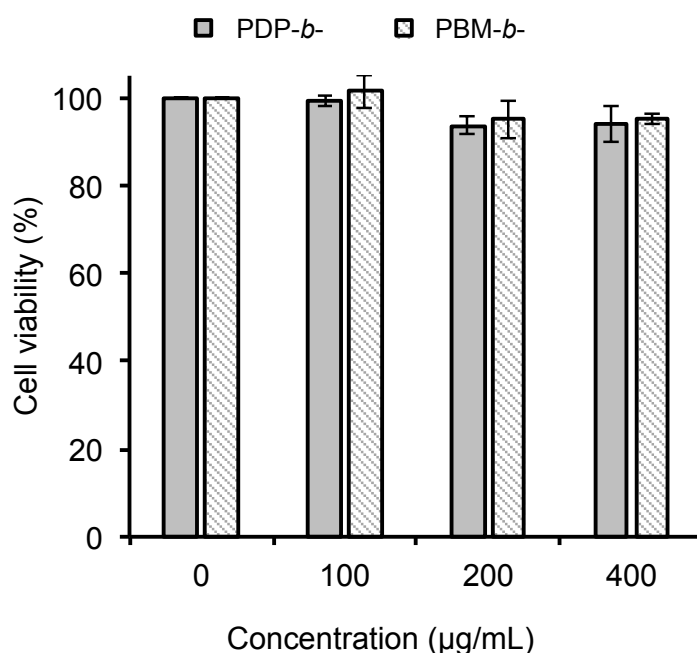
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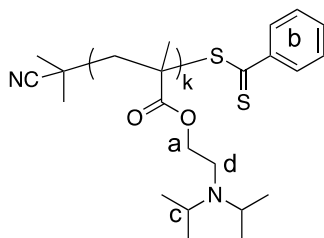
Email: hiruta-yk@pha.keio.ac.jp

kanazawa-hd@pha.keio.ac.jp



**Fig. S1** Concentration dependent viability of HeLa cells after incubation **PDP-*b*-ND**, and **PBM-*b*-ND** for 4 h at 42 °C. Cell viabilities were measured after 44 h. Error bars represent mean values ± 1σ ( $n = 3$ ).

# <sup>1</sup>H NMR spectrum of PDPA



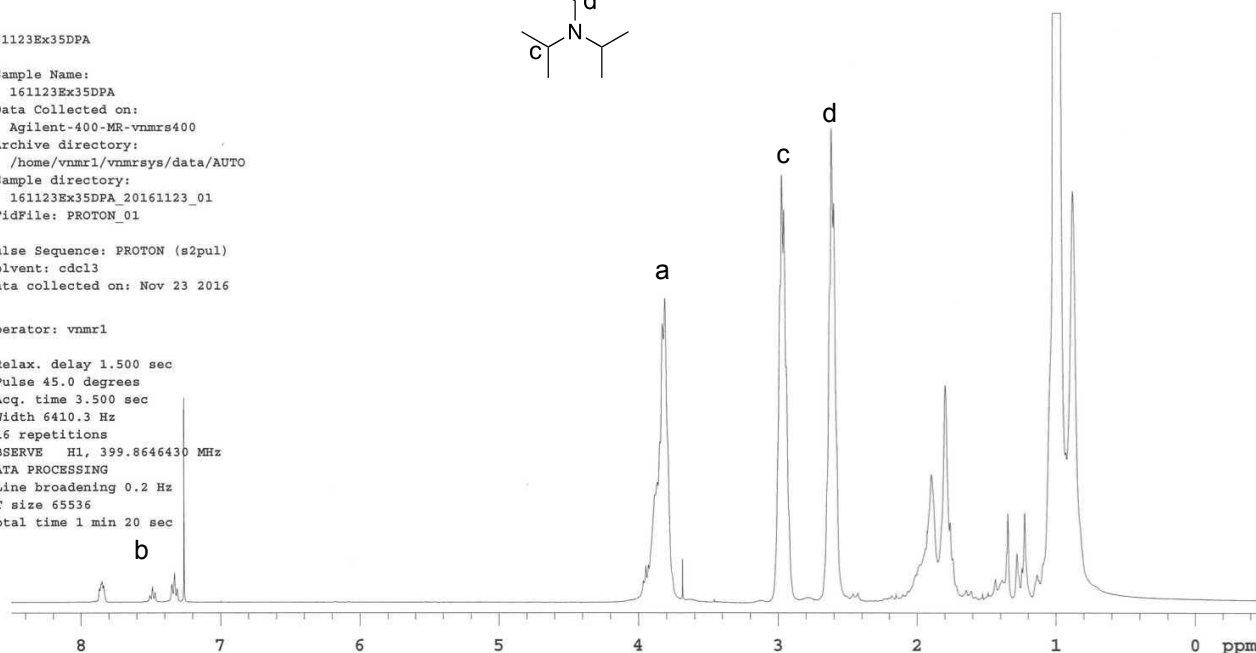
161123Ex35DPA

Sample Name:  
161123Ex35DPA  
Data Collected on:  
Agilent-400-MR-vnmrs400  
Archive directory:  
/home/vnmr1/vnmrsys/data/AUTO  
Sample directory:  
161123Ex35DPA\_20161123\_01  
FidFile: PROTON\_01

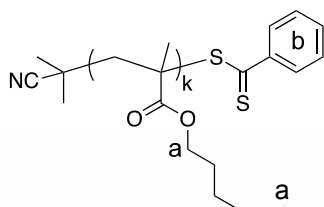
Pulse Sequence: PROTON (s2pul)  
Solvent: cdcl3  
Data collected on: Nov 23 2016

Operator: vnmr1

Relax. delay 1.500 sec  
Pulse 45.0 degrees  
Acq. time 3.500 sec  
Width 6410.3 Hz  
16 repetitions  
OBSERVE H1, 399.8646430 MHz  
DATA PROCESSING  
Line broadening 0.2 Hz  
FT size 65536  
Total time 1 min 20 sec



# <sup>1</sup>H NMR spectrum of PBMA



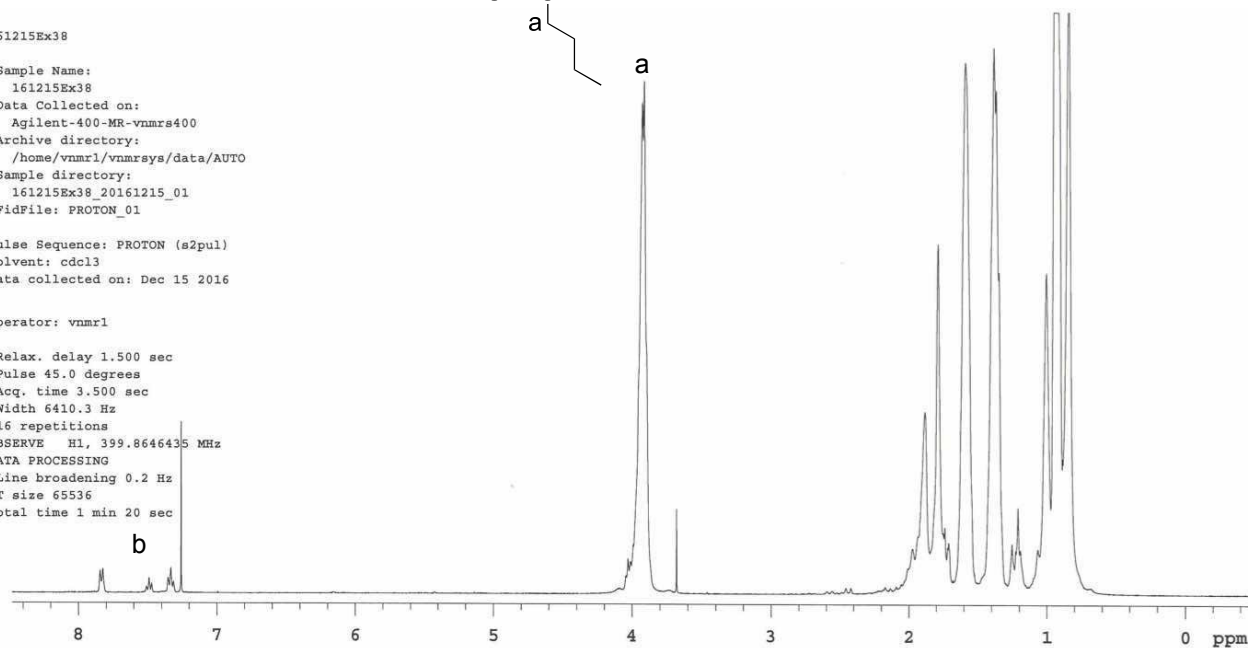
161215Ex38

Sample Name:  
161215Ex38  
Data Collected on:  
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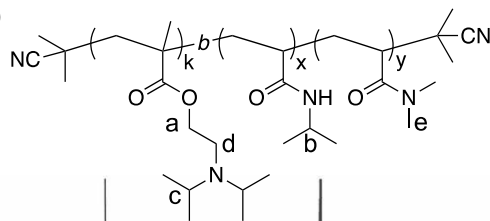
Pulse Sequence: PROTON (s2pul)  
Solvent: cdcl3  
Data collected on: Dec 15 2016

Operator: vnmr1

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Pulse 45.0 degrees  
Acq. time 3.500 sec  
Width 6410.3 Hz  
16 repetitions  
OBSERVE H1, 399.8646435 MHz  
DATA PROCESSING  
Line broadening 0.2 Hz  
FT size 65536  
Total time 1 min 20 sec



### $^1\text{H}$ NMR spectrum of PDP-*b*-ND



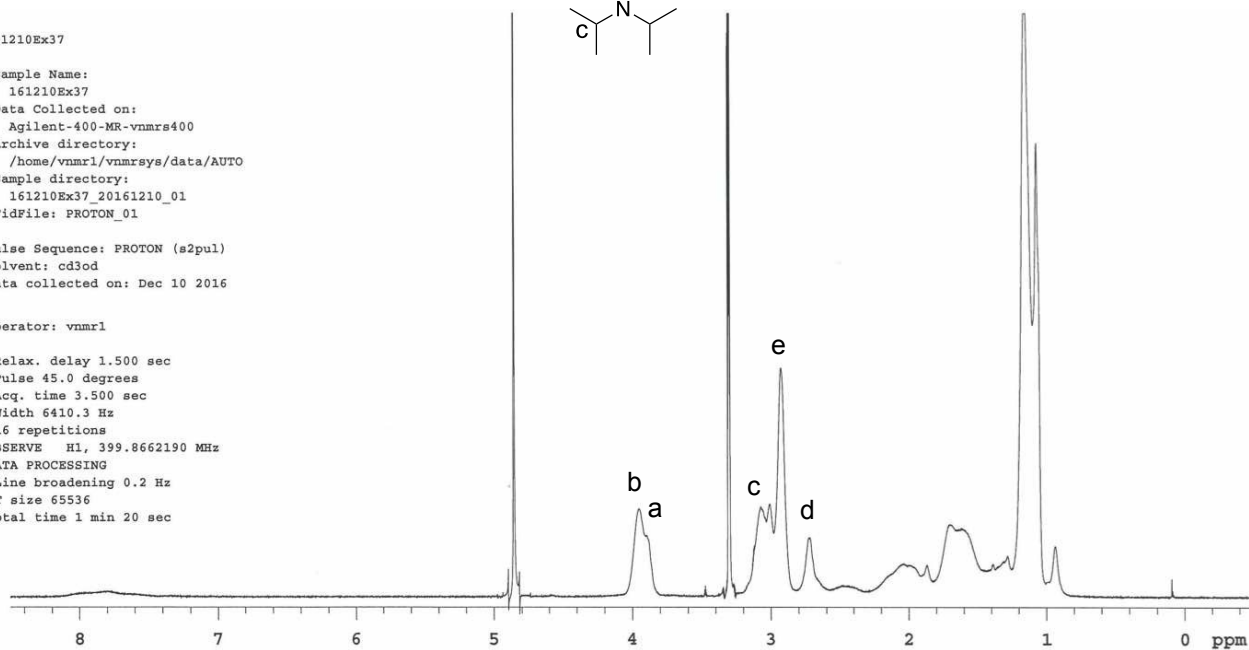
161210Ex37

Sample Name:  
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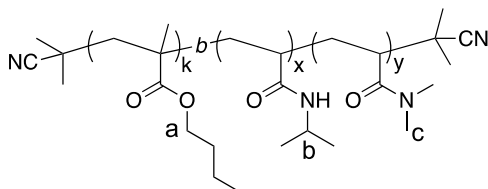
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Solvent: cd3od  
Data collected on: Dec 10 2016

Operator: vnmr1

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Pulse 45.0 degrees  
Acq. time 3.500 sec  
Width 6410.3 Hz  
16 repetitions  
OBSERVE H1, 399.8662190 MHz  
DATA PROCESSING  
Line broadening 0.2 Hz  
FT size 65536  
Total time 1 min 20 sec



### $^1\text{H}$ NMR spectrum of PBM-*b*-ND



161221Ex40

Sample Name:  
161221Ex40  
Data Collected on:  
Agilent-400-MR-vnmrs400  
Archive directory:  
/home/vnmr1/vnmrsys/data/AUTO  
Sample directory:  
161221Ex40\_20161221\_01  
FidFile: PROTON\_01

Pulse Sequence: PROTON (s2pul)  
Solvent: cd3od  
Data collected on: Dec 21 2016

Operator: vnmr1

Relax. delay 1.500 sec  
Pulse 45.0 degrees  
Acq. time 3.500 sec  
Width 6410.3 Hz  
16 repetitions  
OBSERVE H1, 399.8662166 MHz  
DATA PROCESSING  
Line broadening 0.2 Hz  
FT size 65536  
Total time 1 min 20 sec

