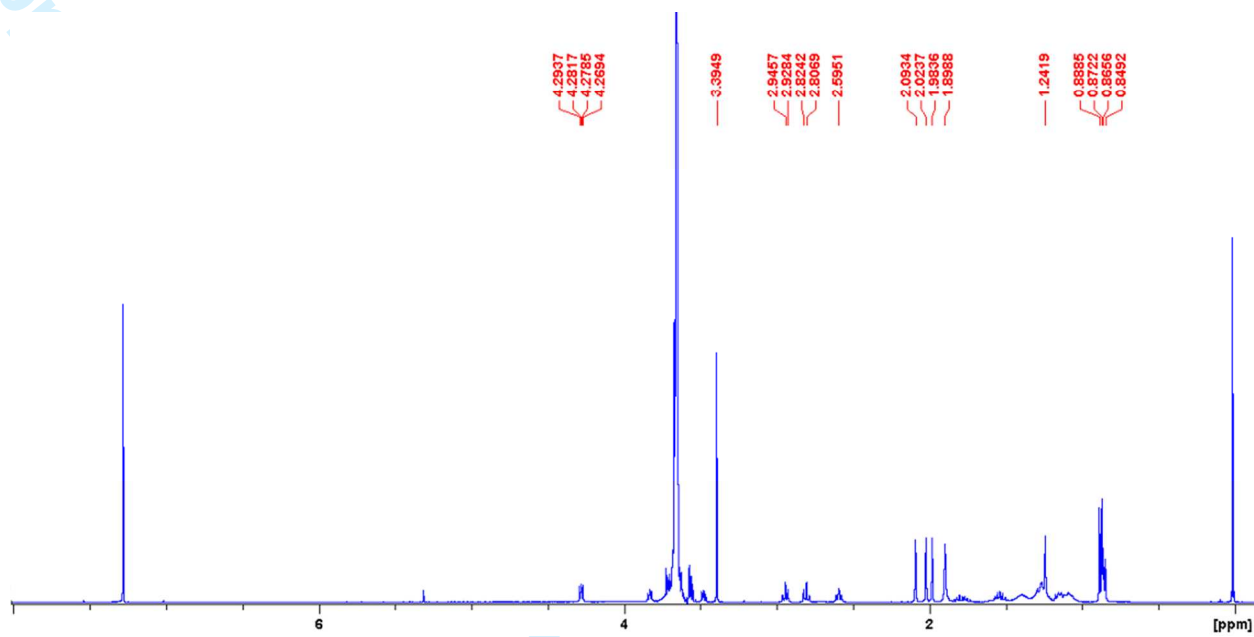
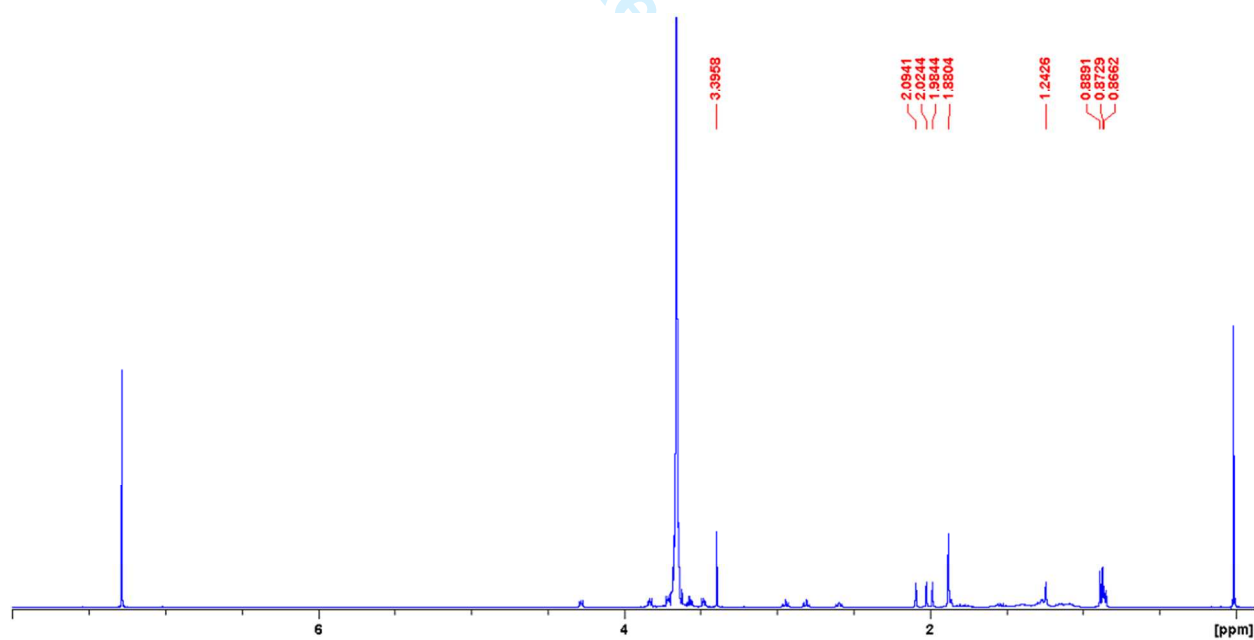


Supp

(A)

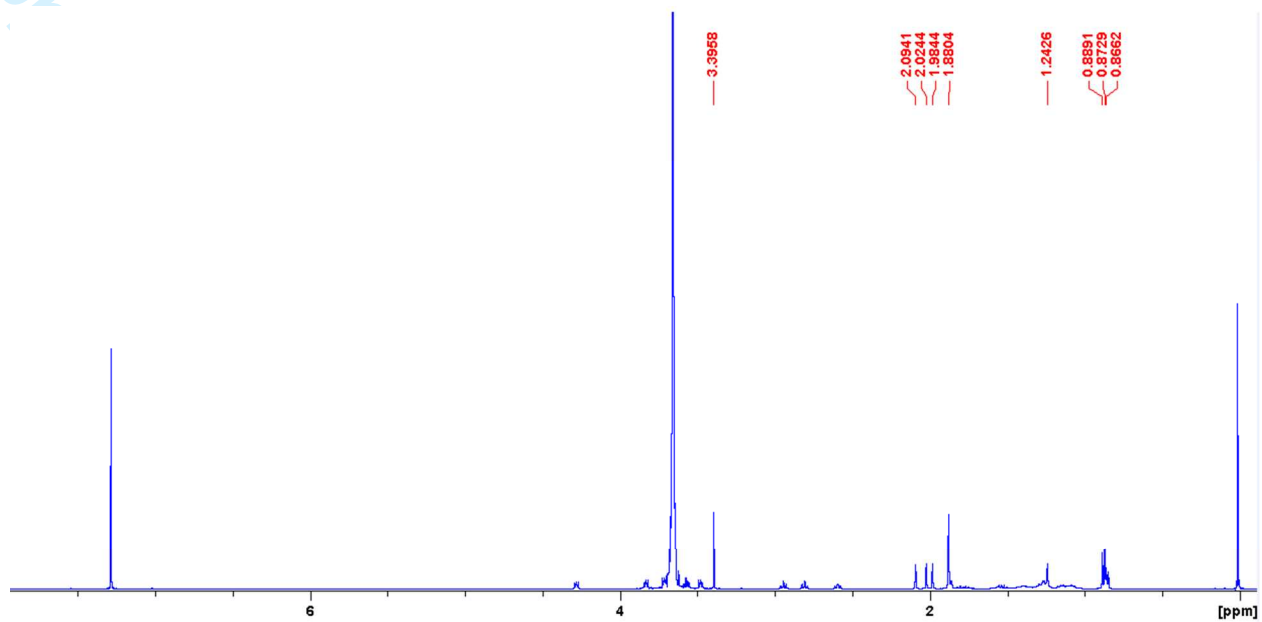


(B)

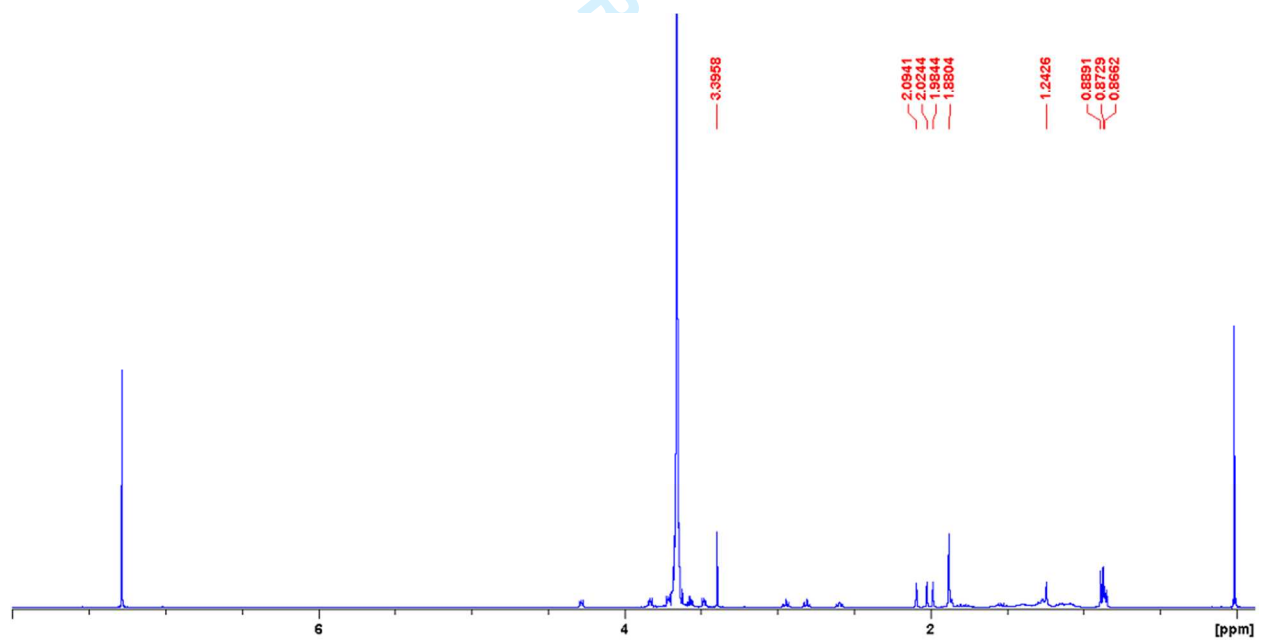


lication

Supp  
(C)



(D)

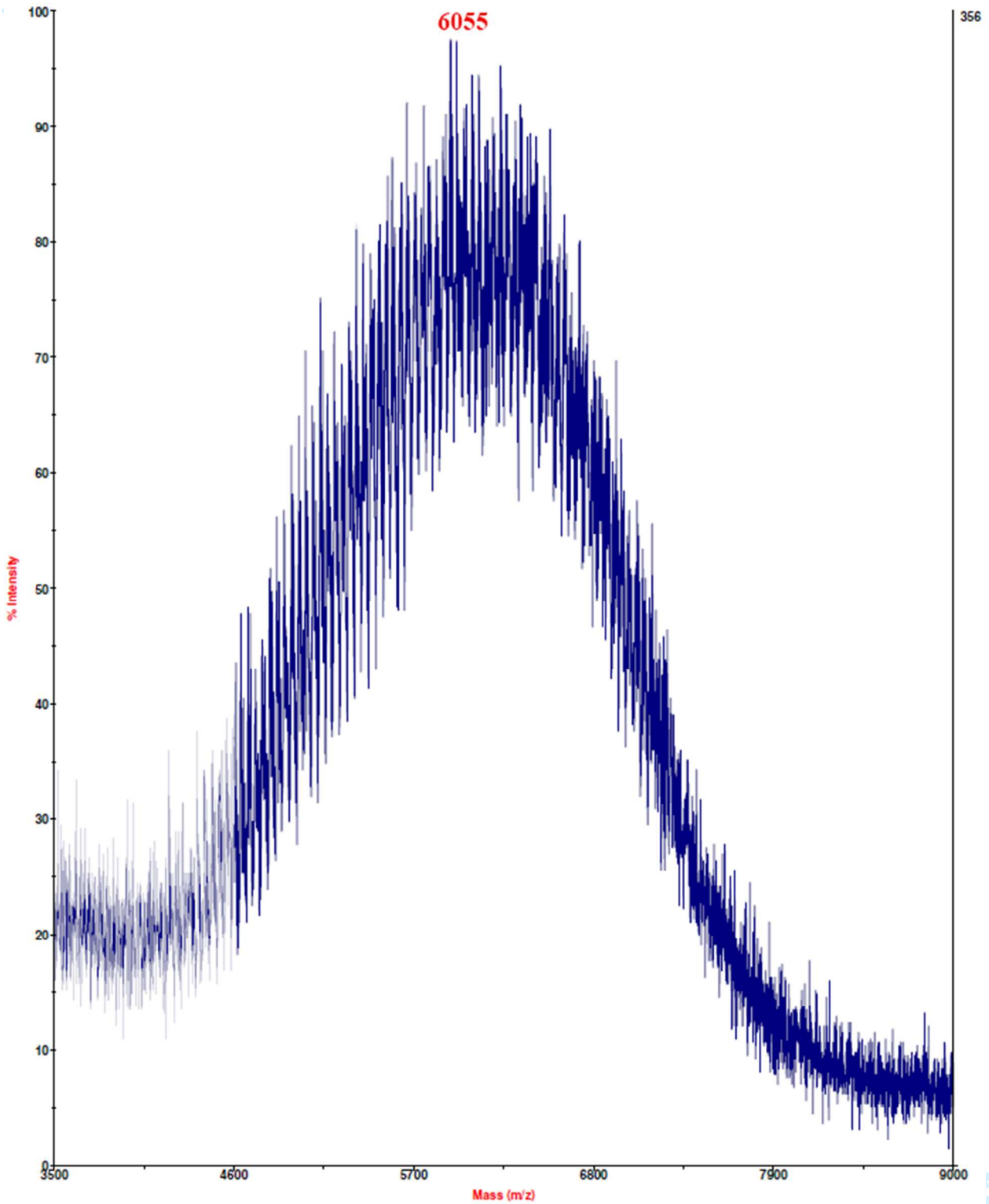


**Fig. S1.**  $^1\text{H}$  NMR spectra (400MHz) of  $\text{PEG}_{5\text{K}}\text{-VE}_2$  (A),  $\text{PEG}_{5\text{K}}\text{-VE}$  (B),  $\text{PEG}_{2\text{K}}\text{-VE}_2$  (C) and  $\text{PEG}_{2\text{K}}\text{-VE}$  (D) conjugates in  $\text{CDCl}_3$ .

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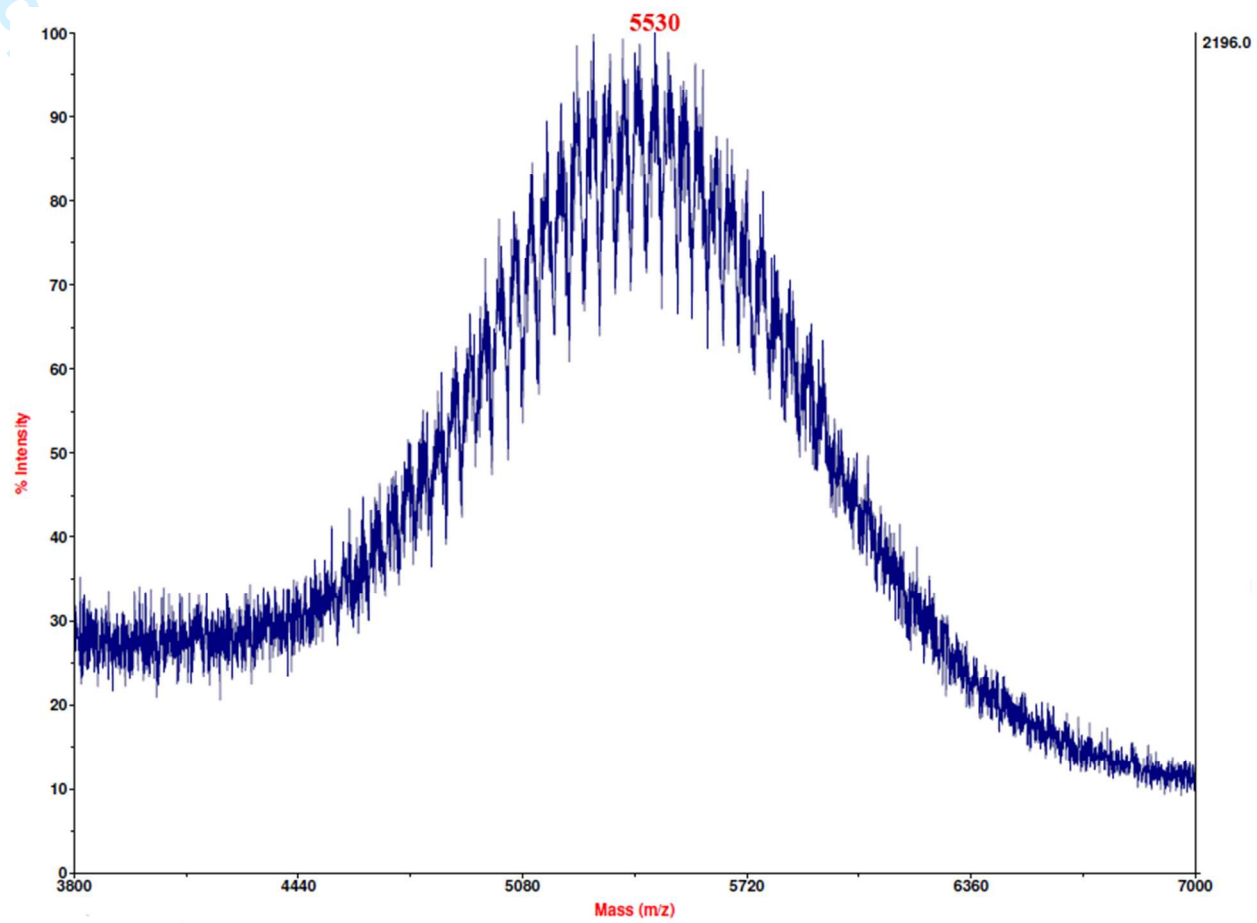
Supra

(A)

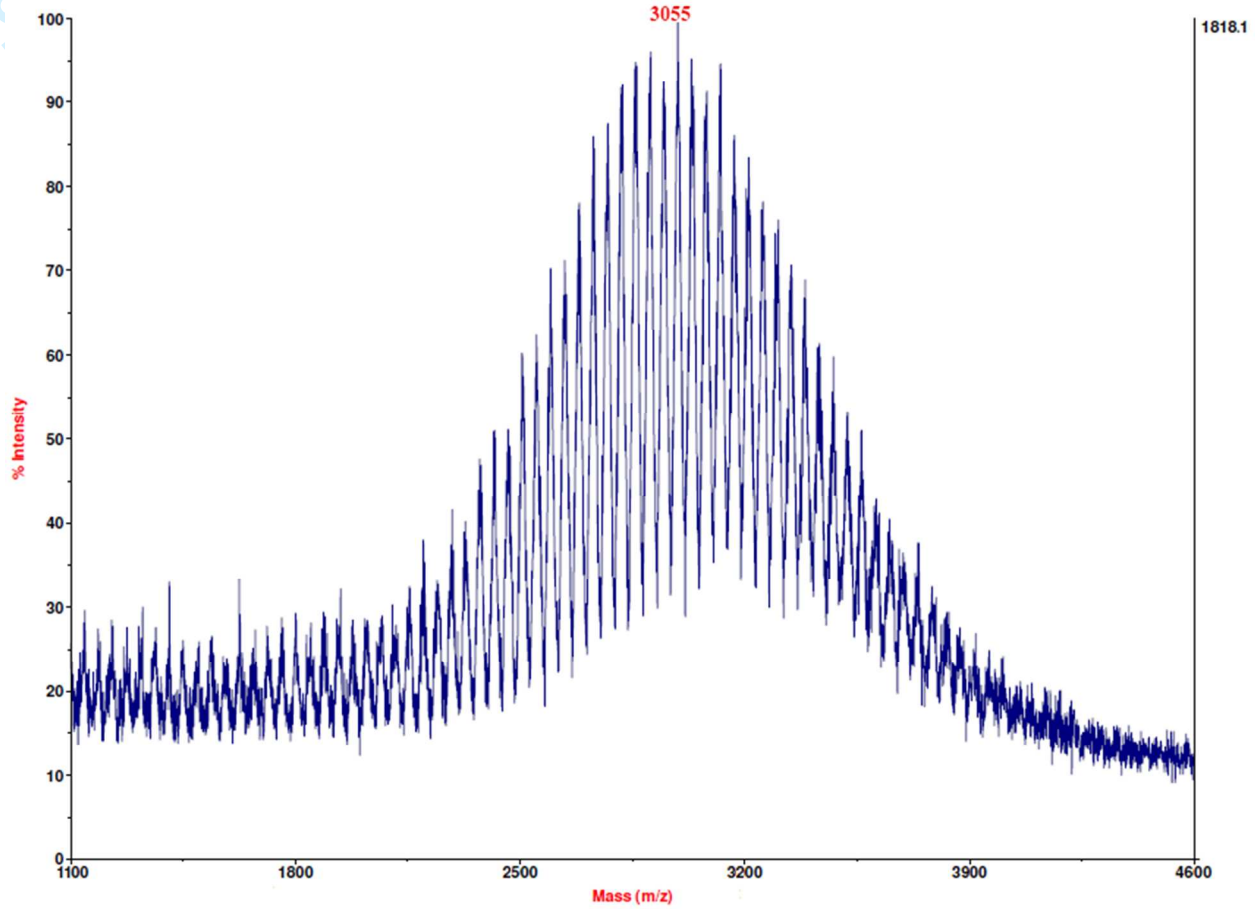


ion

SUP  
(B)



SUP  
(C)



Only - Not for Publication

Supp  
(D)

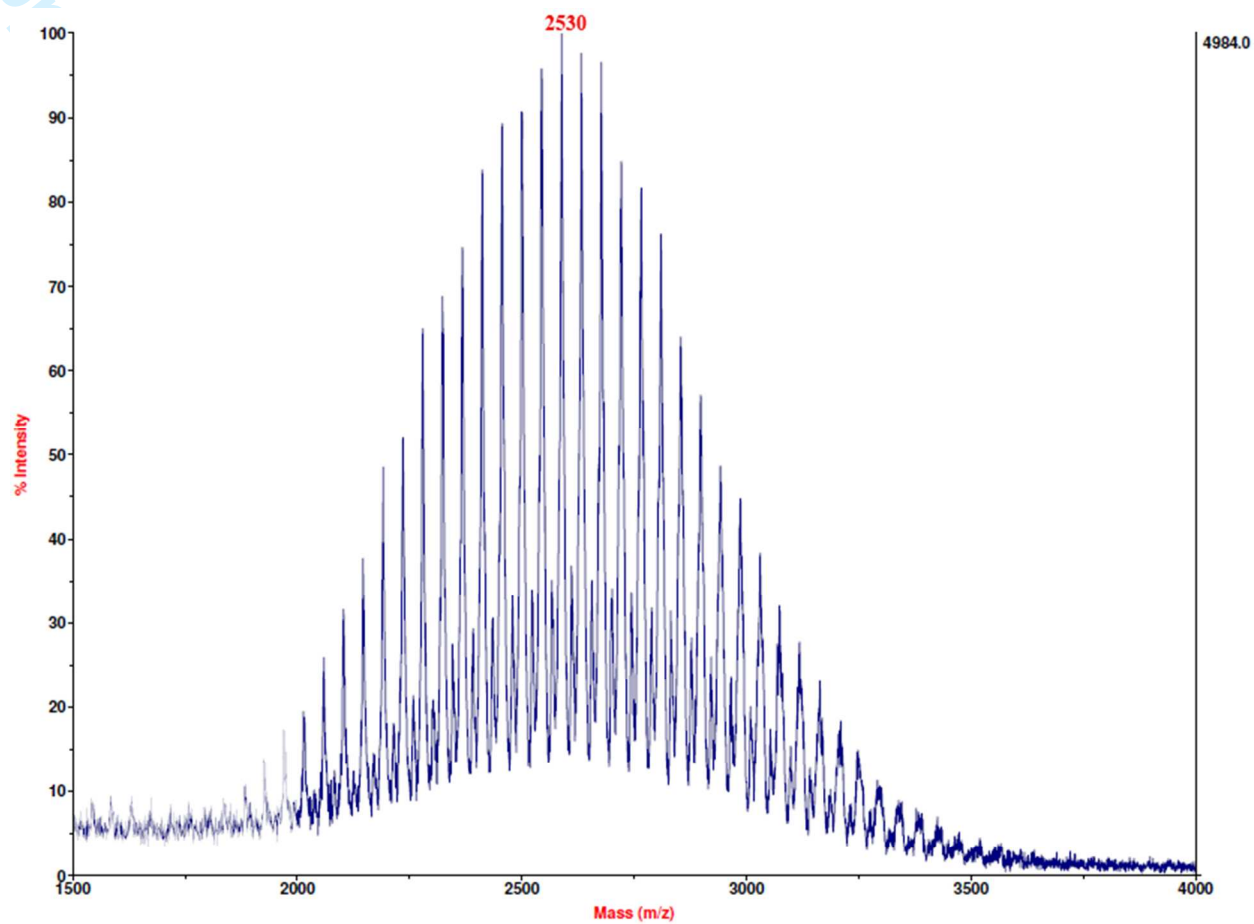
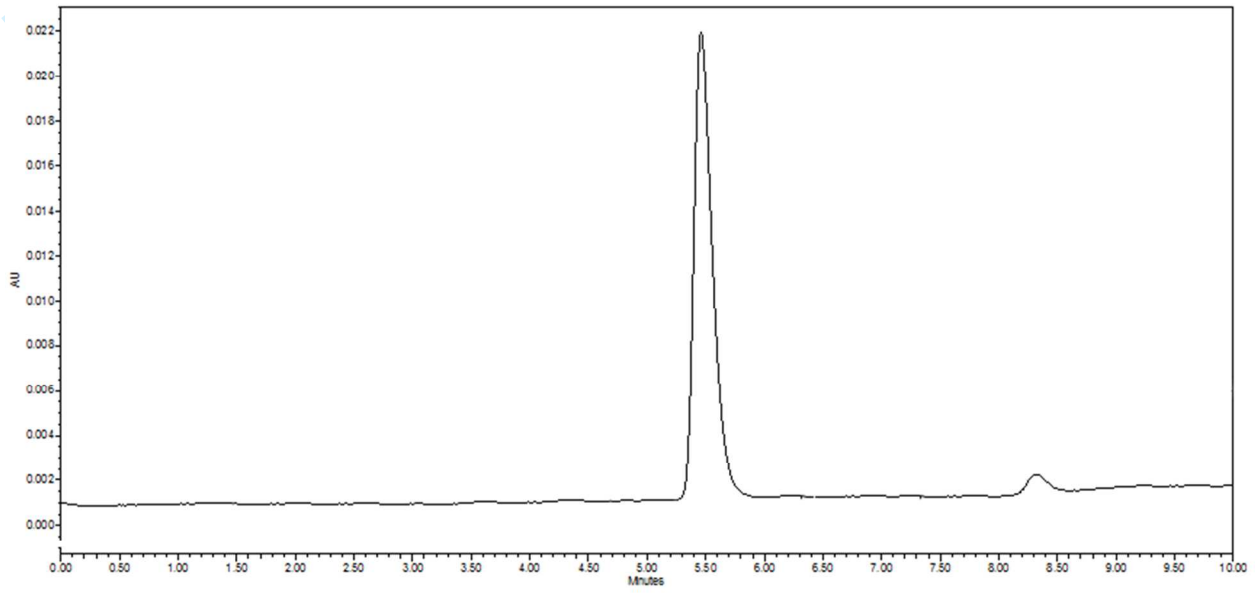


Fig. S2. MADLI-TOF of PEG<sub>5K</sub>-VE<sub>2</sub> (A), PEG<sub>5K</sub>-VE (B), PEG<sub>2K</sub>-VE<sub>2</sub> (C) and PEG<sub>2K</sub>-VE (D) conjugates.

Only - Not for Publication

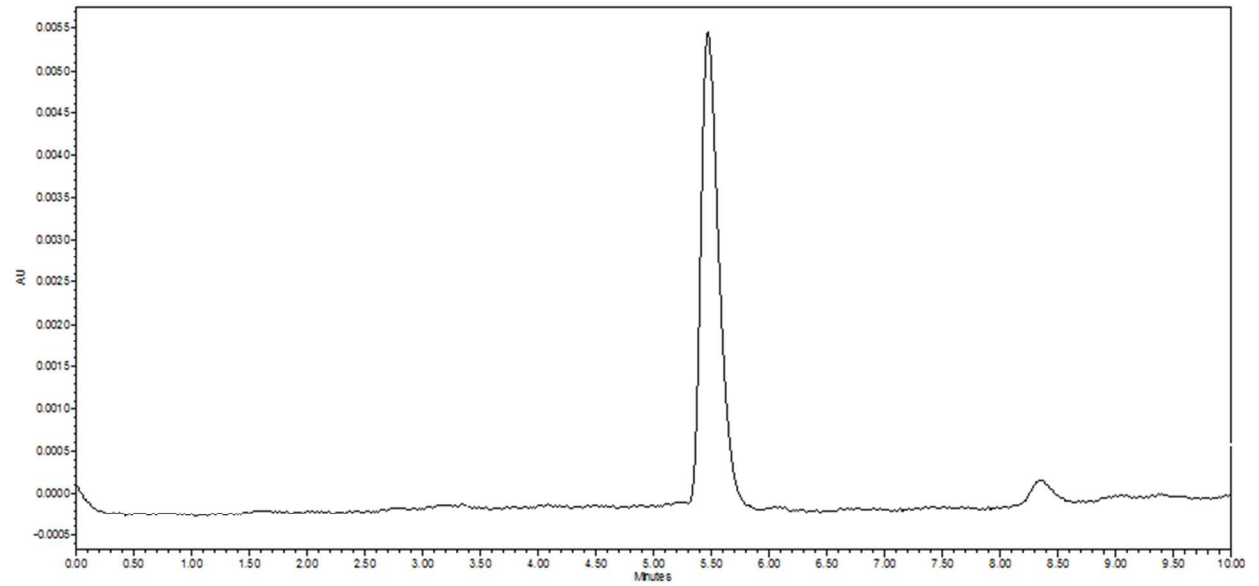
(A)



Peak	Retention Time	Area	% Area	Height
1	5.461	227225	96.04	20742
2	8.329	9377	3.96	814

Purity = 96.04%

(B)

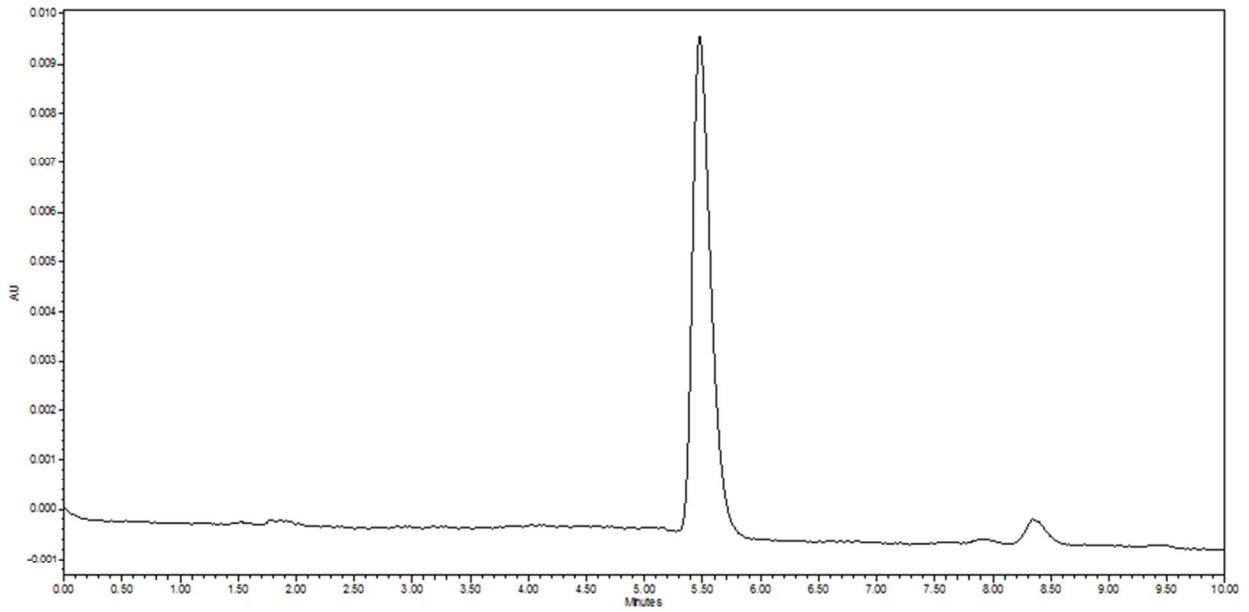


Peak	Retention Time	Area	% Area	Height
1	5.468	60144	94.32	5587
2	8.352	3623	5.68	288

Purity = 94.32%

Supra

(C)

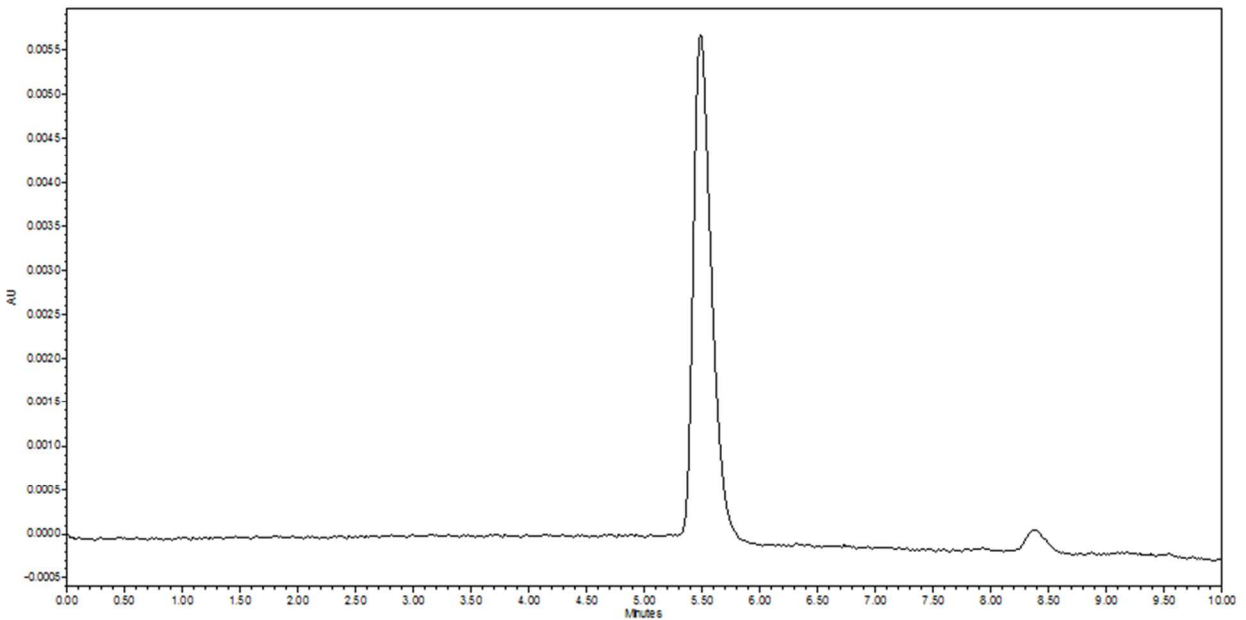


Peak	Retention Time	Area	% Area	Height
1	5.476	108494	95.06	10016
2	8.344	5641	4.94	483

Purity = 95.06%

(D)

evi



Peak	Retention Time	Area	% Area	Height
1	5.485	62531	95.57	5717
2	8.389	2898	4.43	251

Purity = 95.57%

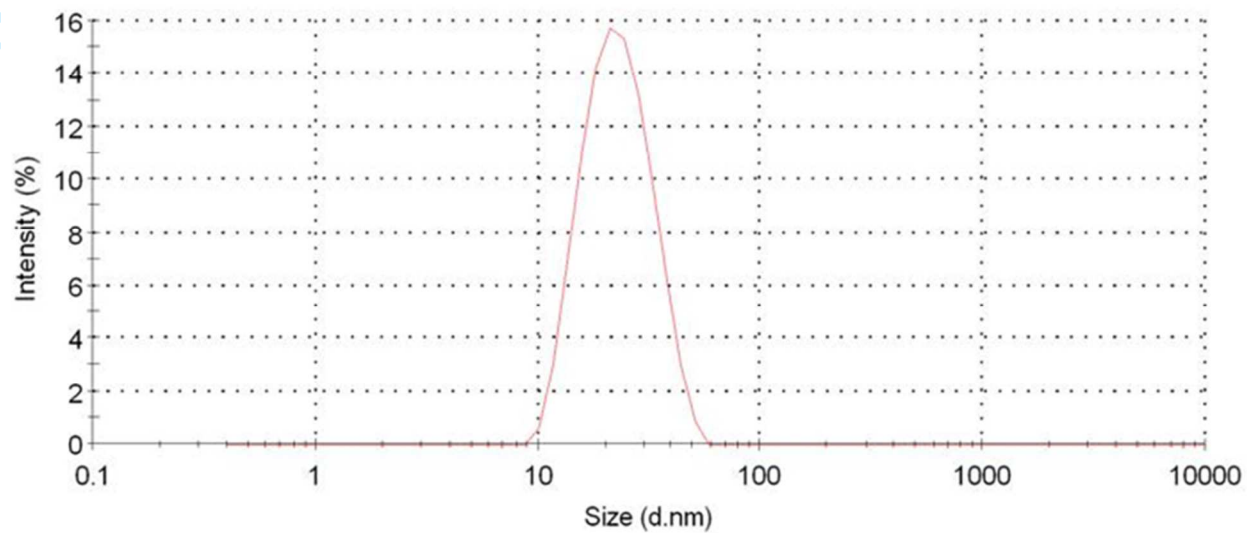
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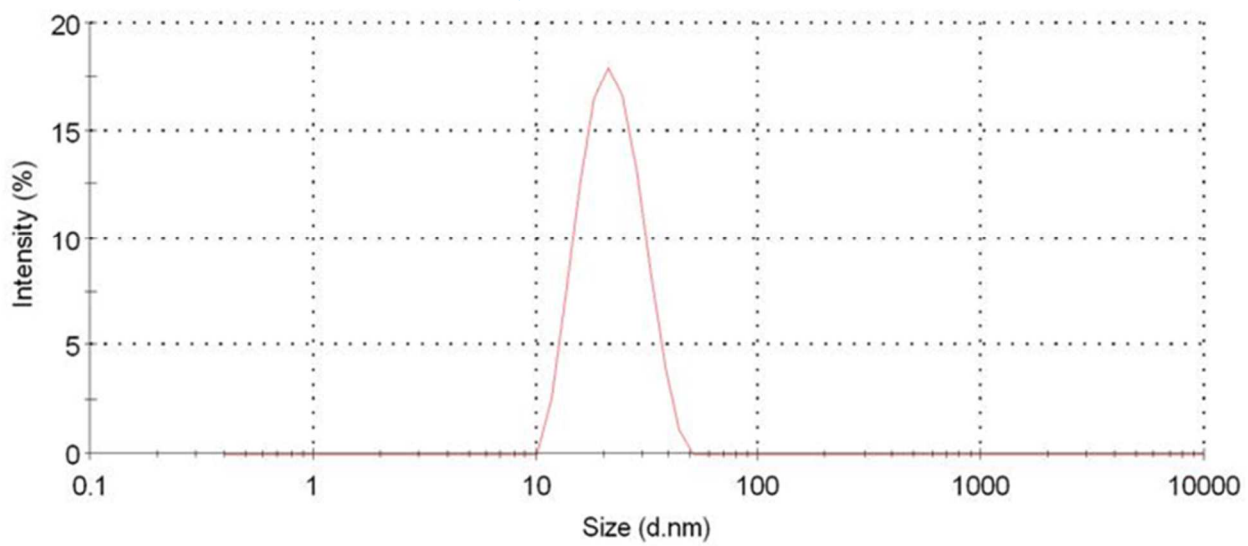
**Fig. S3.** HPLC trace of PEG<sub>5K</sub>-VE<sub>2</sub> (A), PEG<sub>5K</sub>-VE (B), PEG<sub>2K</sub>-VE<sub>2</sub> (C) and PEG<sub>2K</sub>-VE (D) conjugates.

Supporting Information - For Review Only - Not for Publication

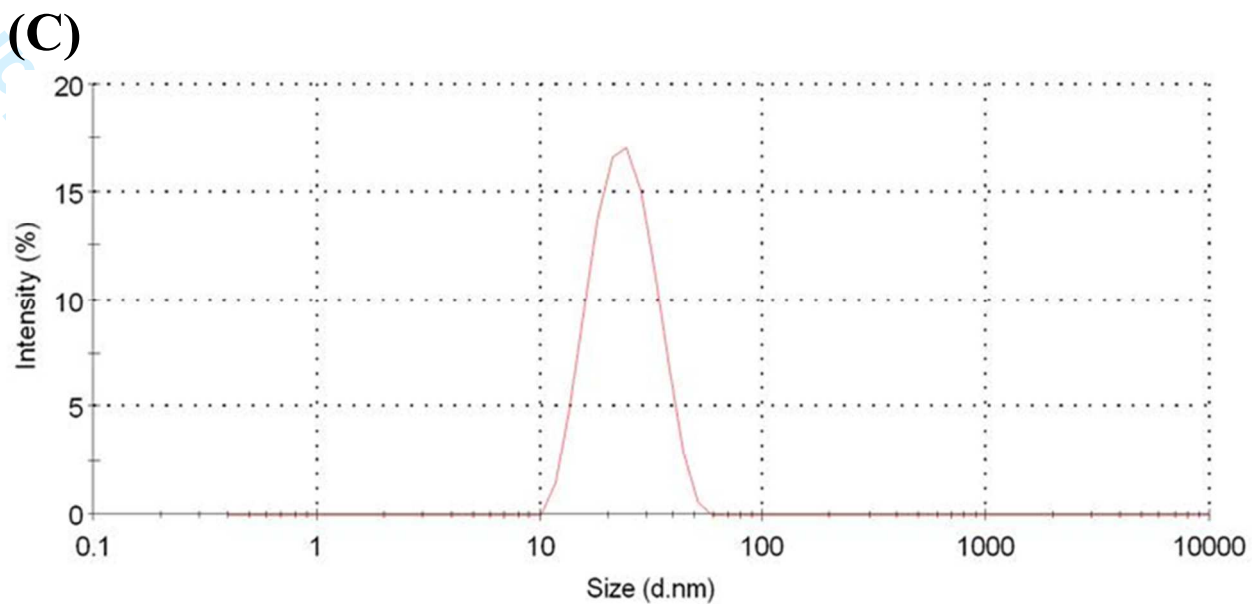
**(A)**



**(B)**

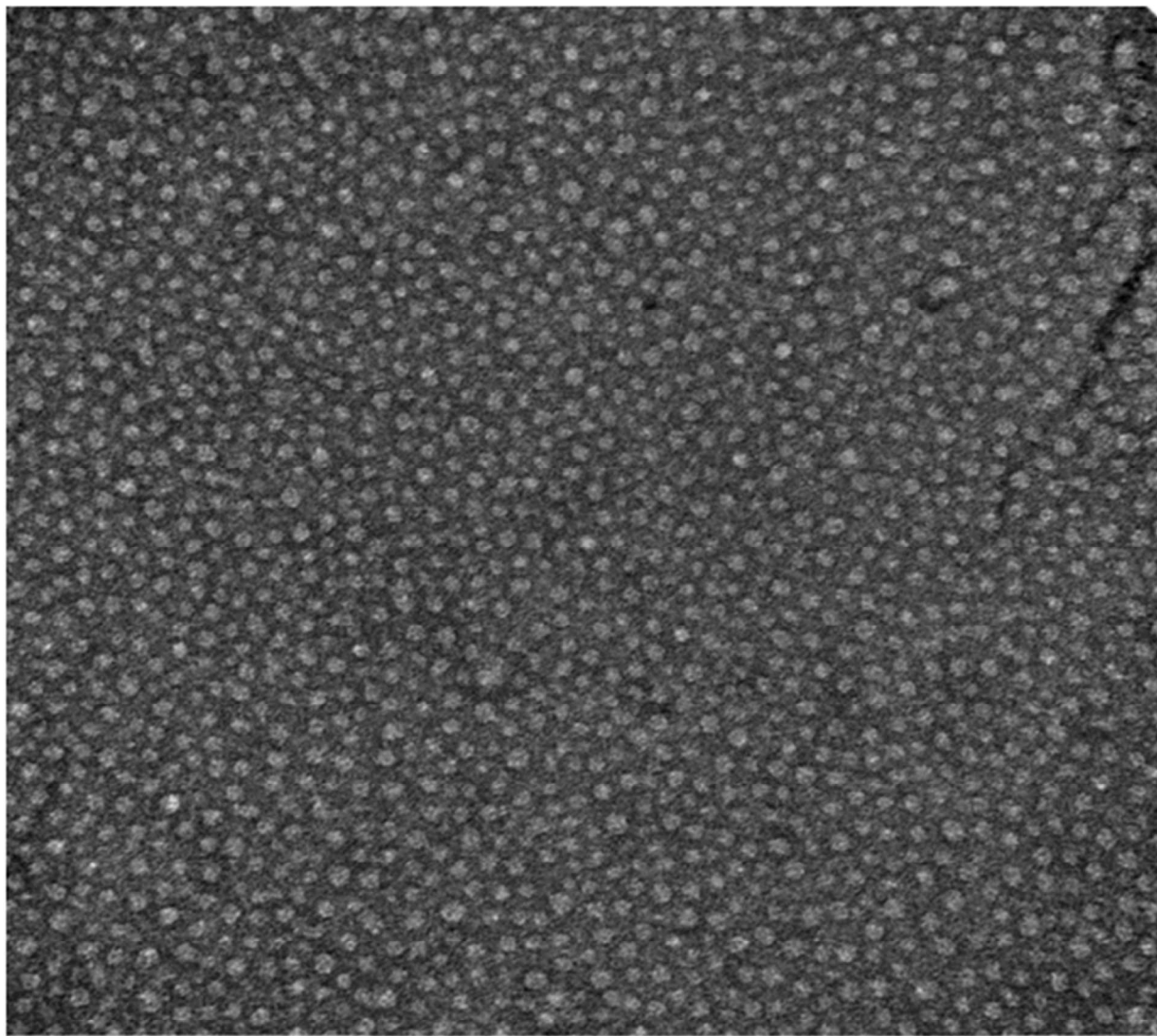


Not for Publication



**Fig. S4.** The size distribution of free PEG<sub>5K</sub>-VE (A), PEG<sub>2K</sub>-VE<sub>2</sub> (B) and PEG<sub>2K</sub>-VE (C) nanoparticles in PBS measured by dynamic light scattering (DLS).

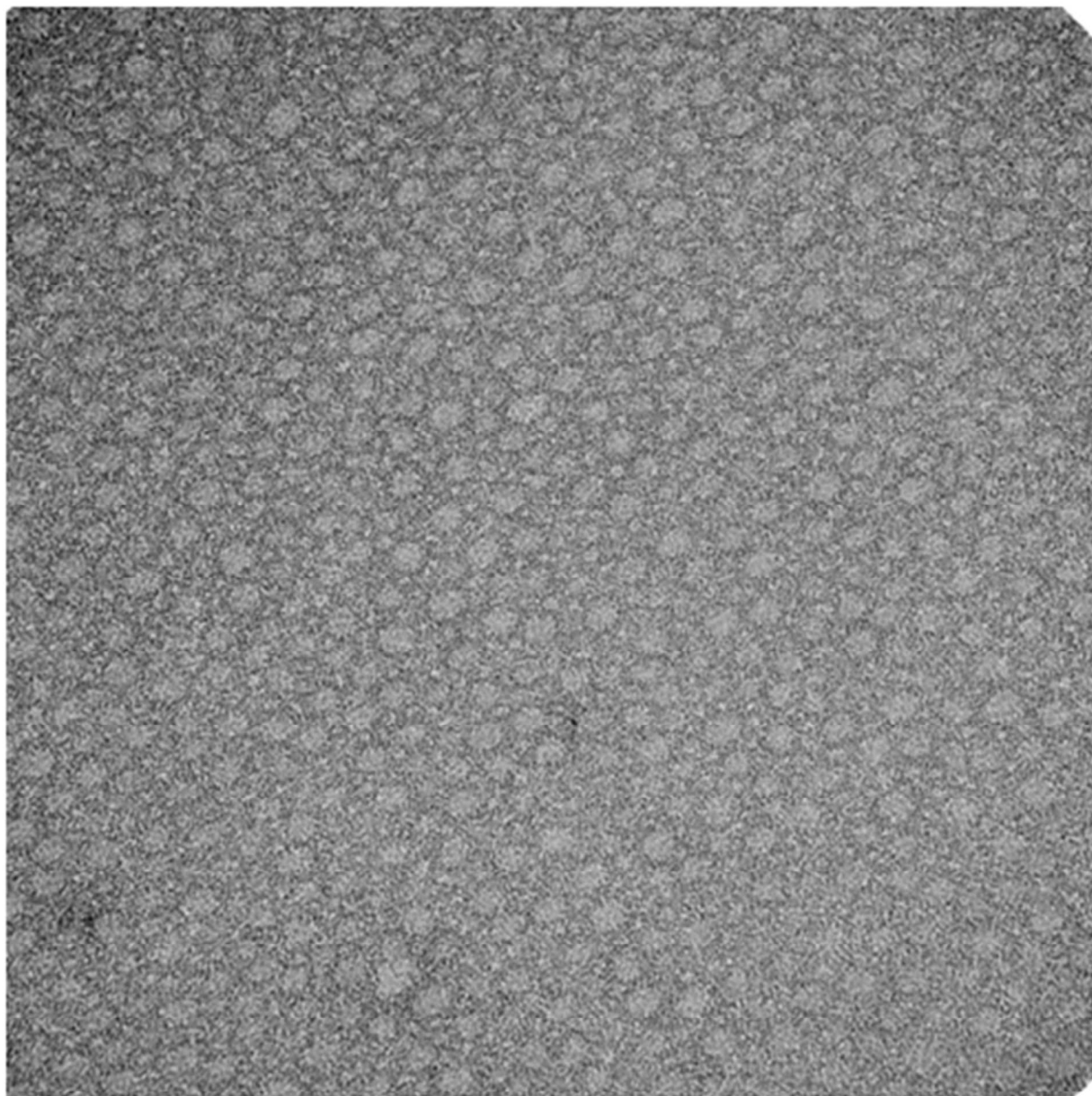
(A)



100 nm

Not for Publication

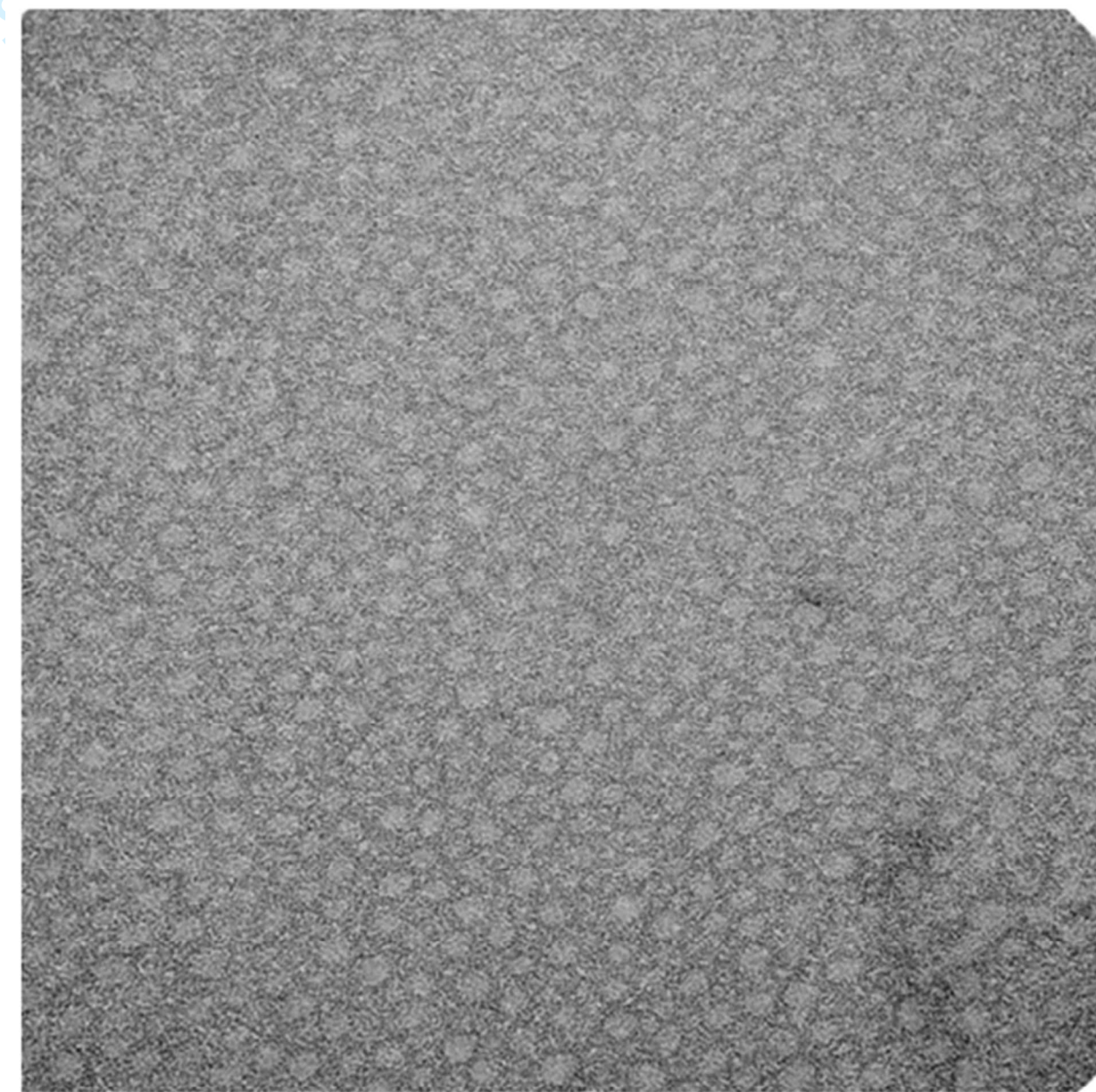
**(B)**



**100 nm**

Publication





100 nm

**Fig. S5.** Transmission electron microscopy of PEG<sub>5K</sub>-VE (A), PEG<sub>2K</sub>-VE<sub>2</sub> (B) and PEG<sub>2K</sub>-VE (C) nanoparticles.

