

1

Supplementary materials

2 **Combining amphiphilic chitosan and bioglass for mediating osteogenic growth**

3

peptide gene in two cell lines

4 Jie Luo^{ab}, You Ling^{ab}, Xian Li^{ac}, Bo Yuan,^c Feng Yu^{ab} and Xiaofeng Chen^{*abc}

5 ^aSchool of Materials Science and Engineering, South China University of Technology,

6 Guangzhou, 510641, China

7 ^bNational Engineering Research Center for Tissue Restoration and Reconstruction, South

8 China University of Technology, Guangzhou, 510006, China

9 ^cKey Laboratory of Biomedical Materials and Engineering, Ministry of Education, Guangzhou,

10 510006, China

11

12 * To whom correspondence should be addressed.

13 Xiaofeng Chen

14 Email: chenxf@scut.edu.cn

15 Fax: +86-20-22236083

16 Tel:+86-20-22236283

1 Table S1 Characterization of mPEG-PCL copolymer.

mPEG-PCL (Theoretical)	Mn (Theoretical)	Mn (GPC)	Mw (GPC)	PDI (GPC)
2000-2000	4000	3791	4399	1.16

2

3

4 Table S2 Degree of substitution (DS) and CMC of CS-PCL-mPEG nanoparticles.

sample	CSPH : mPEG-PCL (g/g)	DS (mPEG-PCL)	CMC ($\mu\text{g/mL}$)
CS-PCL-mPEG	1 : 1	8.46	31

5

6

7

8

9

10

11

12

13

14

15

16

17 Fig. S1 Construction of recombinant plasmid pOGP.

18

19

20

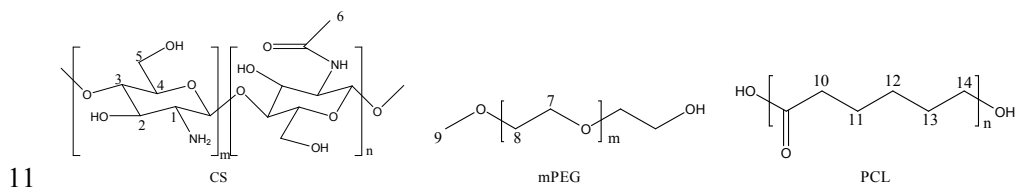
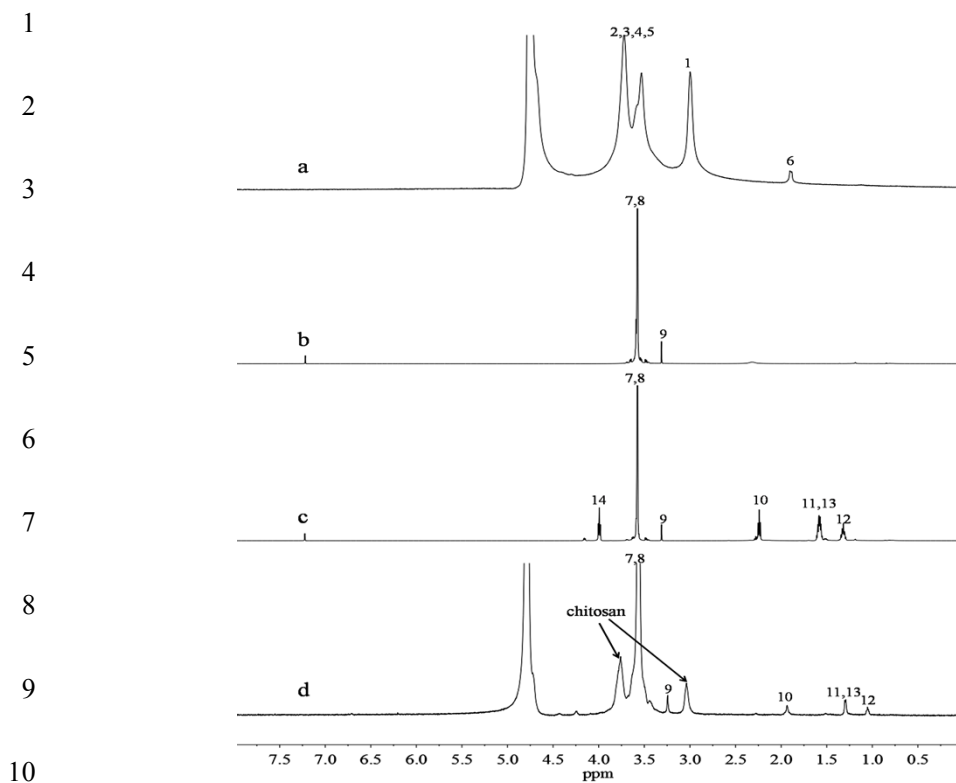
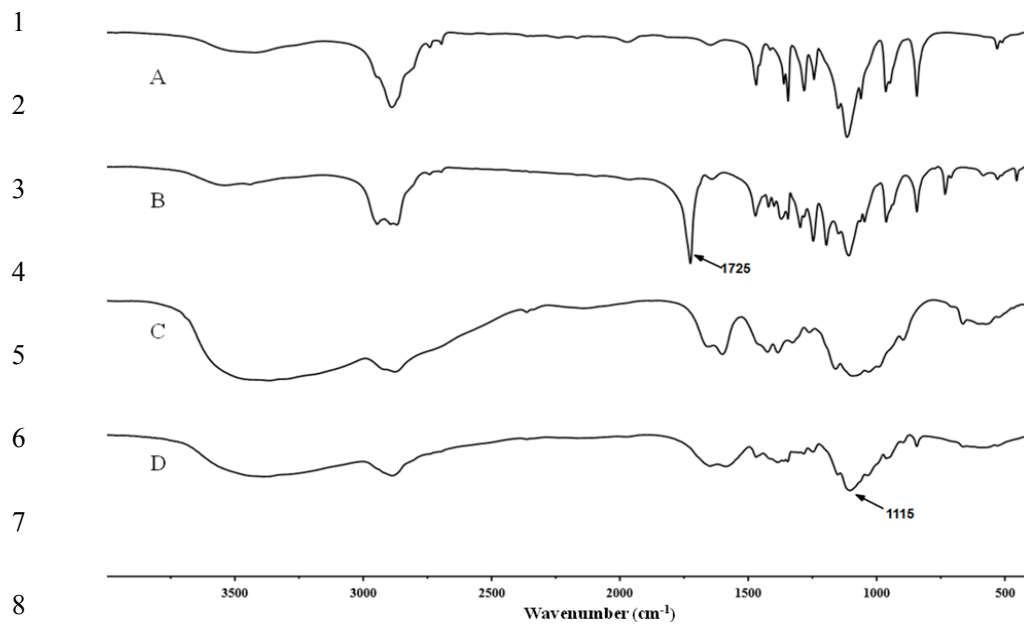


Fig. S2 ^1H NMR spectra of chitosan in Trifluoroacetic acid and D_2O (a), mPEG in CDCl_3 (b), mPEG-PCL in CDCl_3 (c), CS-PCL-mPEG in Trifluoroacetic acid and D_2O (d).



9 Fig. S3 FT-IR spectra of mPEG (A), mPEG-PCL (B), CS (C), CS-PCL-mPEG (D).