

Electronic Supplementary Information (ESI)
of
**A redox-responsive drug delivery system based on RGD containing peptide-
capped mesoporous silica nanoparticles**

Ze-Yong Li,[‡] Jing-Jing Hu,[‡] Qi Xu, Si Chen, Hui-Zhen Jia, Yun-Xia Sun, Ren-Xi Zhuo,
Xian-Zheng Zhang*

*

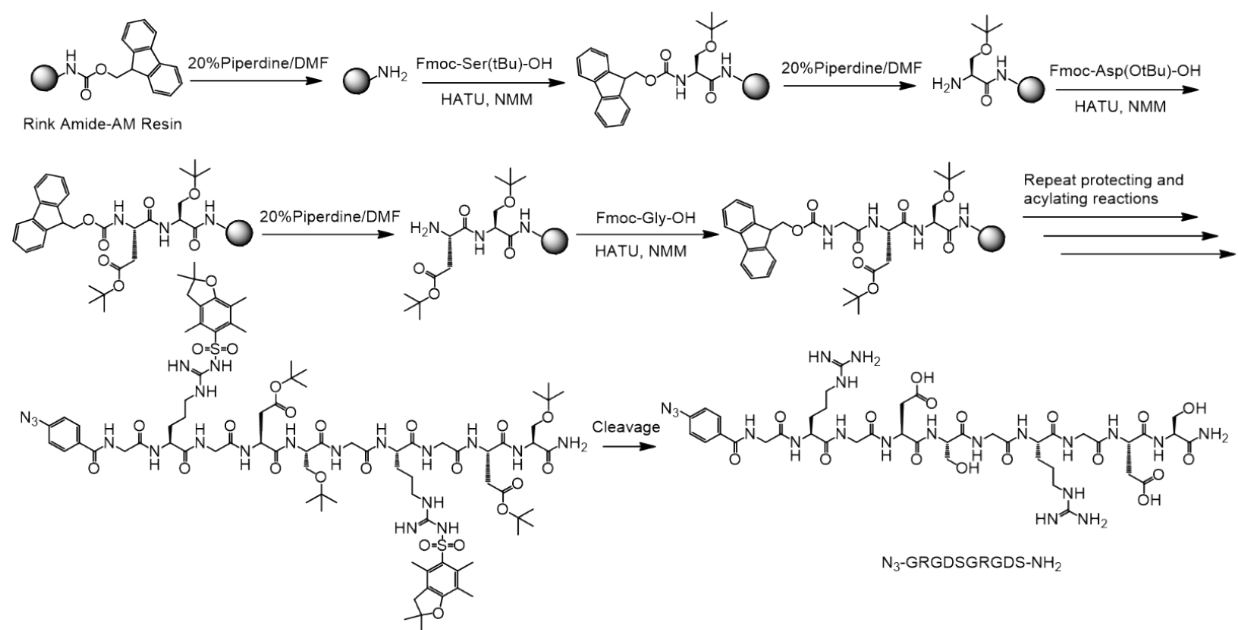
Key Laboratory of Biomedical Polymers of the Ministry of Education & Department of
Chemistry, Wuhan University, Wuhan 430072, P. R. China

* To whom correspondence should be addressed. E-mail: xz-zhang@whu.edu.cn

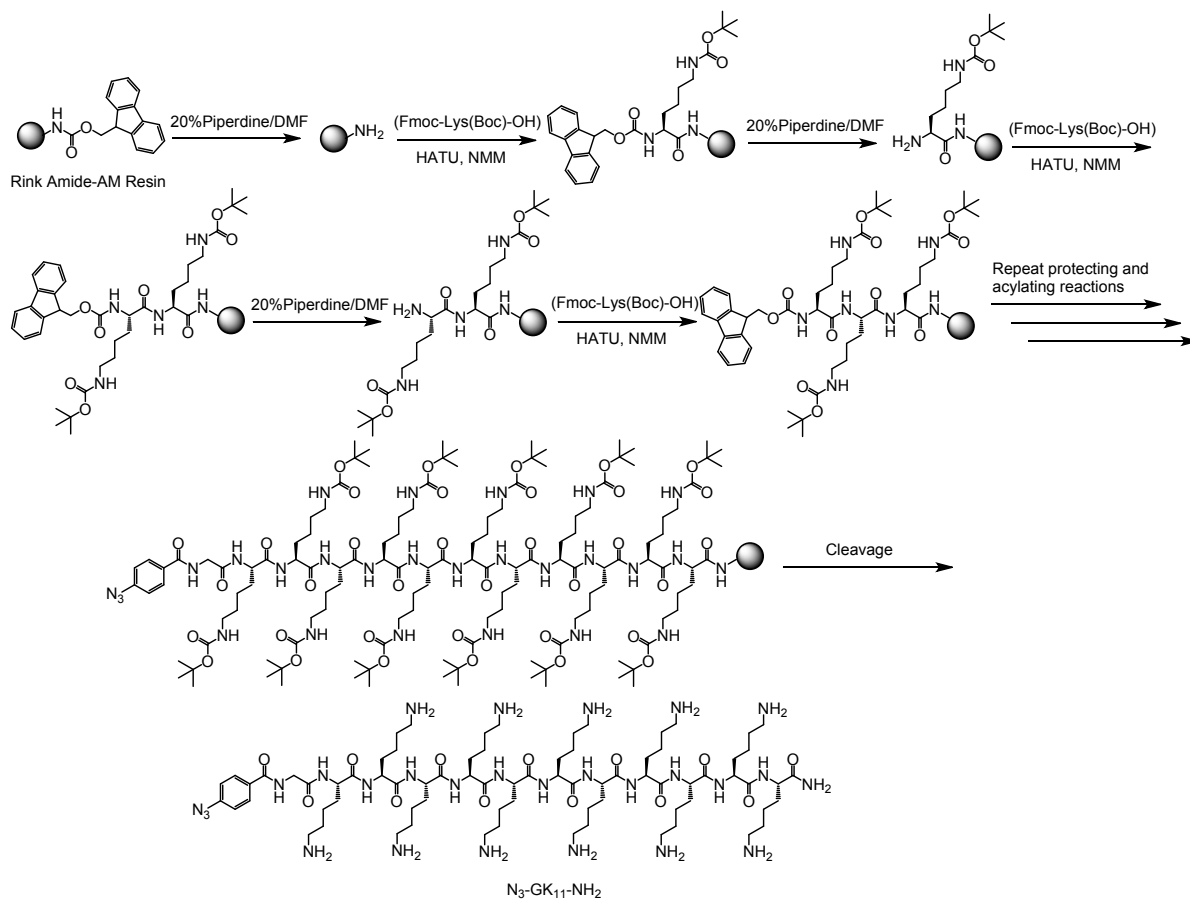
[‡] These authors equally contributed to this work.

Table S1. ζ potentials of different nanoparticles in DI water.

Sample	ζ potential (mV)
MSN-SH	-18.1
MSN-S-S-NH ₂	30.0
MSN-S-S-Alkyne	36.4
MSN-S-S-RGD	24.3



Scheme S1. Synthesis schematic diagram of N_3 -GRGDSGRGDS-NH₂.



Scheme S2. Synthesis schematic diagram of N_3 -GK₁₁-NH₂.

ESI-2013-N149-3 #23-25 RT: 0.65-0.71 AV: 3 NL: 1.24E8
T: + c ESI Full ms [150.00-2000.00]

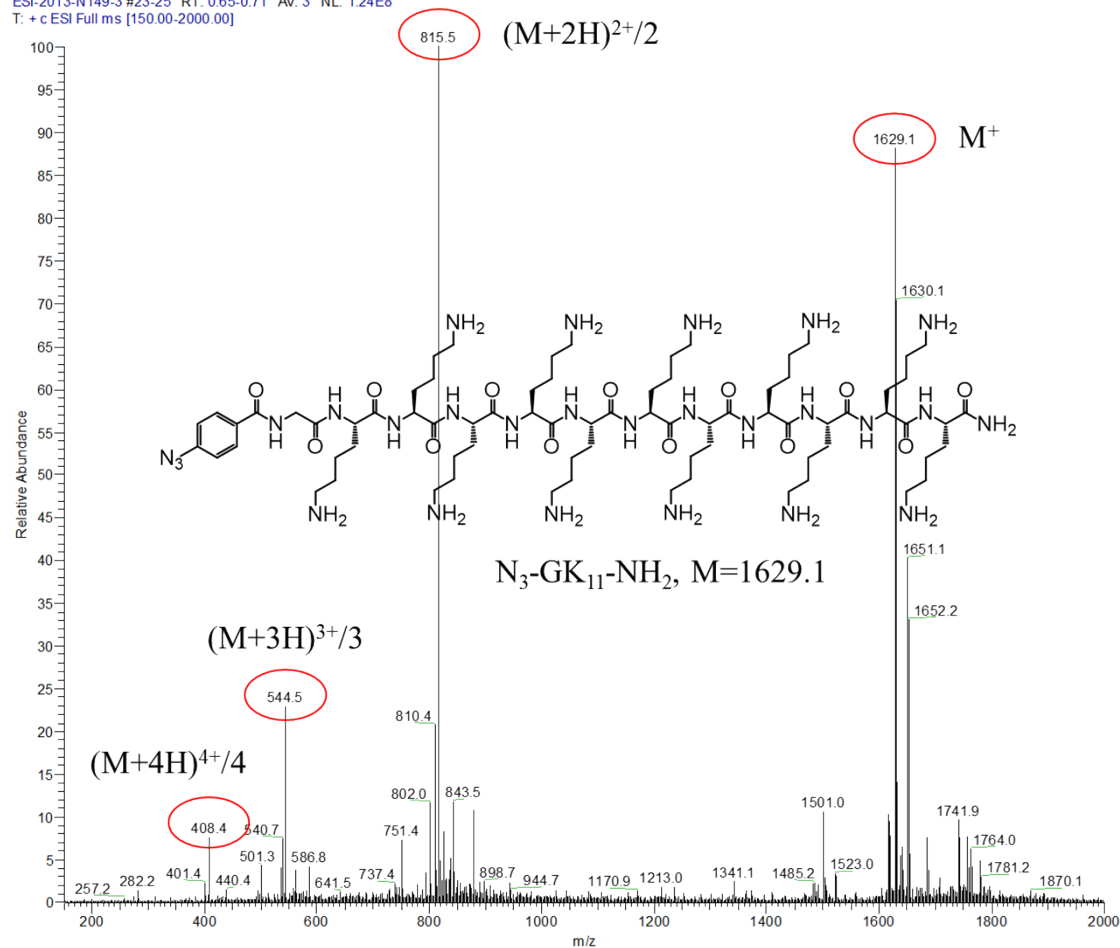


Figure S2. ESI-MS spectrum of N_3 -GK11-NH₂.

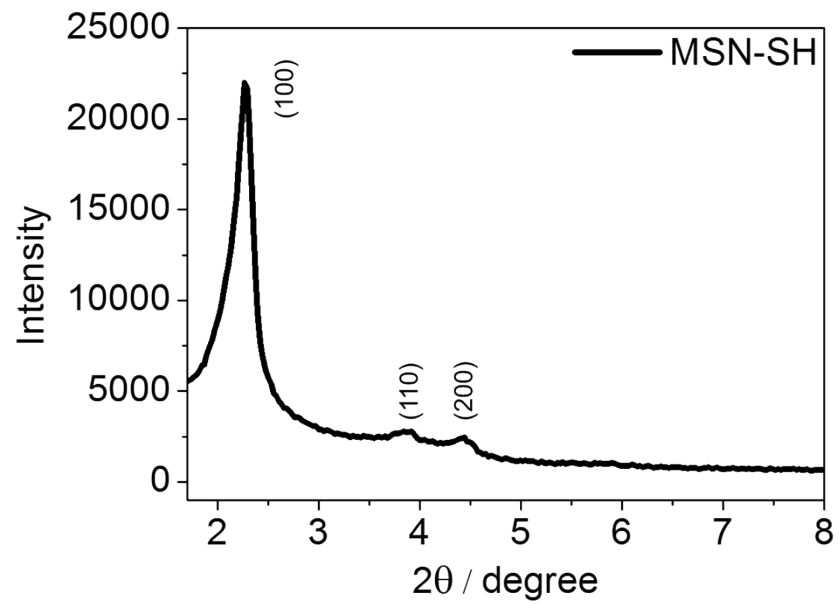


Figure S3. Powder X-ray pattern of the as-synthesized MSN-SH.

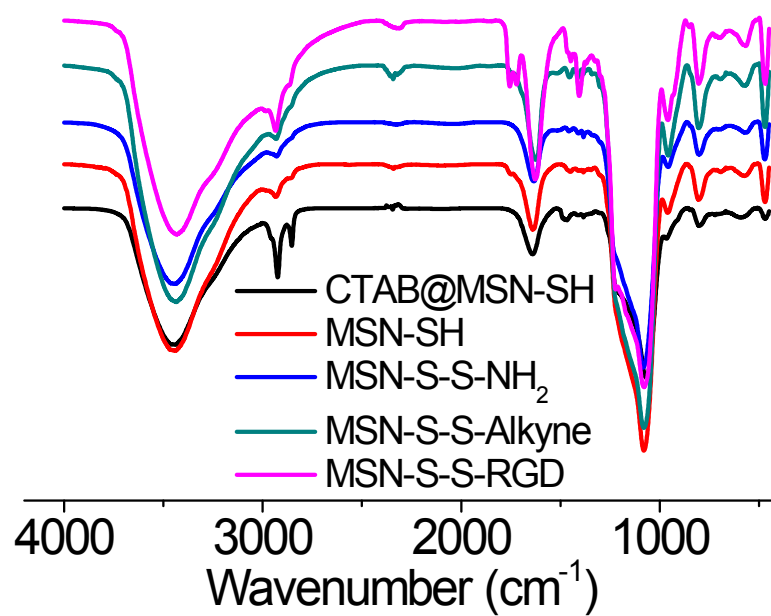


Figure S4. FT-IR spectra of CTAB@MSN-SH, MSN-SH, MSN-S-S-NH₂, MSN-S-S-Alkyne and MSN-S-S-RGD.

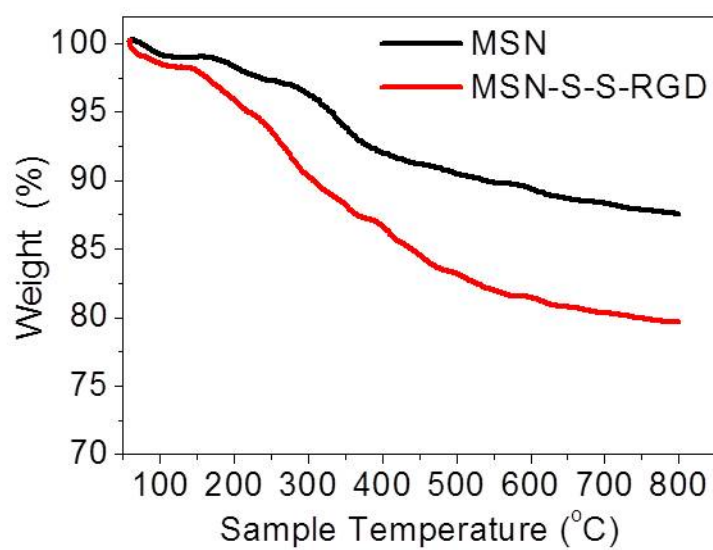


Figure S5. TGA curves of MSN-SH and MSN-S-S-RGD.

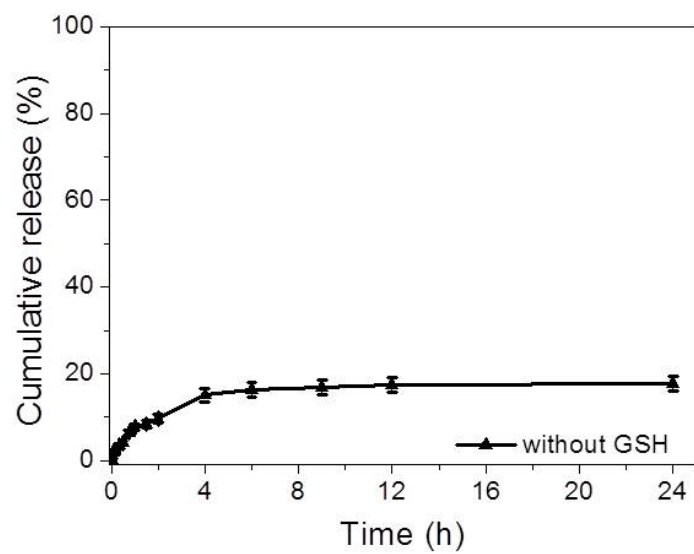


Figure S6. DOX release from DOX@MSN-S-S-RGD in PBS without GSH for 24 h.