DNA-templated strontium-doped calcium phosphate nanoparticles for gene delivery in bone cells

Razieh Khalifehzadeh ^{a,b}, Hamed Arami ^{b, c, *}

^a Department of Chemical Engineering, Stanford University, Shriram Center, 443

Via Ortega, Stanford, California 94305, United States

^b Department of Radiology, Stanford University School of Medicine, James H.

Clark Center, 318 Campus Drive, E-153, Stanford, California 94305, United States

^c Molecular Imaging Program at Stanford (MIPS), Stanford University School of Medicine, James H. Clark Center, 318 Campus Drive, E-153, Stanford, California 94305, United States

*Corresponding author.

E-mail address: arami1@stanford.edu

Supporting Information:

Figure S1 to S2.

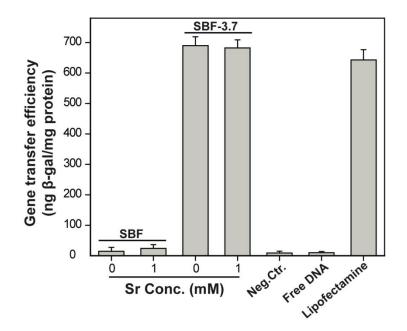


Figure S1. The gene transfer efficiency using SrCaP-DNA NPs prepared by two different mineralizing solutions (SBF and SBF-3.7). The gene transfer efficiency is shown as the amount of reporter gene encoding β -galactosidase (β -gal) normalized by total protein.

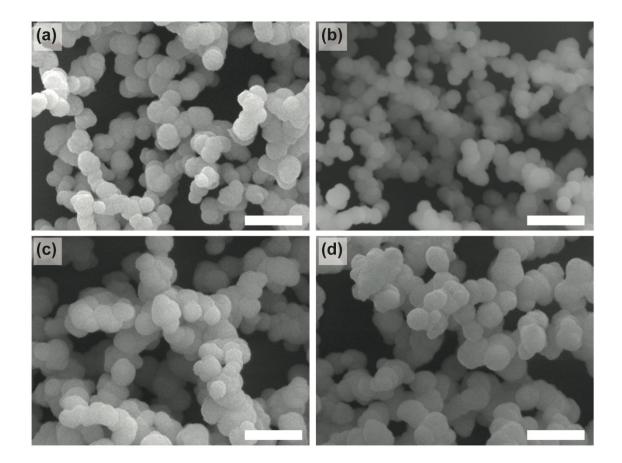


Figure S2. SEM micrographs of SrCaP-DNA NPs synthesized using mineralizing solution SBF-3.7 with higher concentrations of Sr^{2+} . (a) 6 mM, (b) 12 mM, (c) 18 mM and (d) 24 mM. Scale bar is 1 μ m.